LAX

PROJECT ID: 5377-00-70

WITH: N/A

COUNTY: VERNON

MARCH 2025

ORDER OF SHEETS

TOTAL SHEETS = 42

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T CLINTON, BLOOMINGDALE ROAD

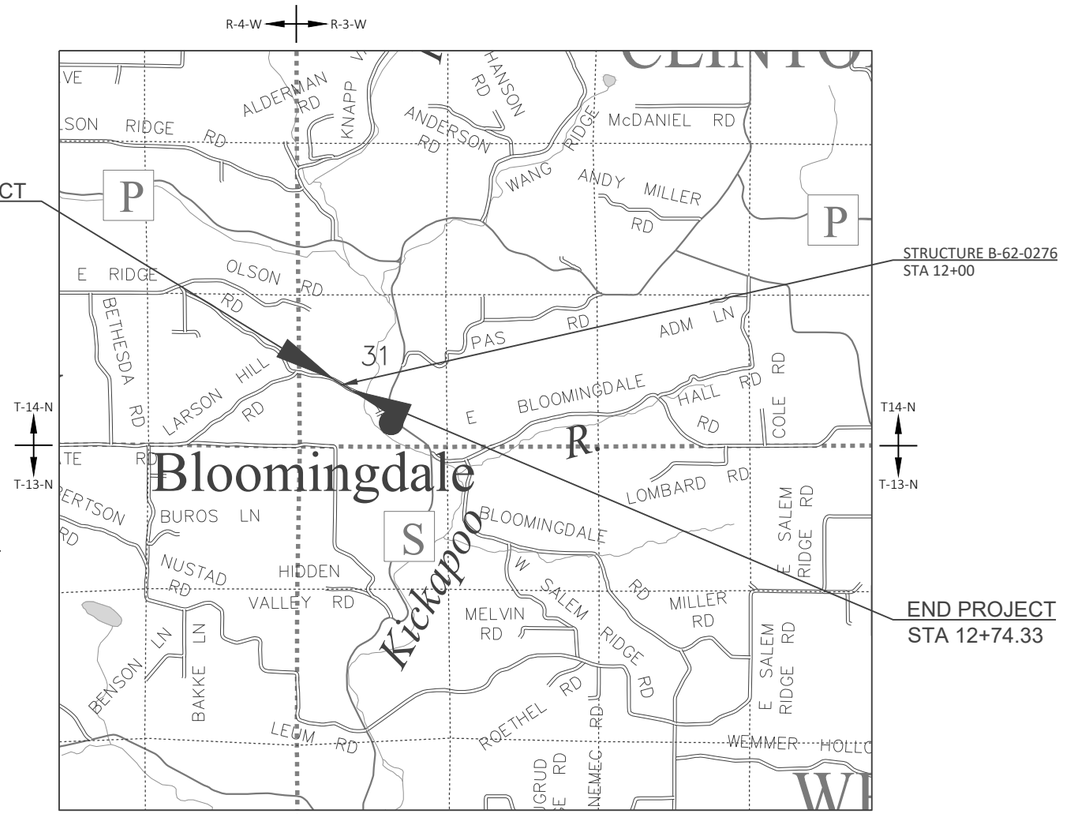
BR W FORK KICKAPOO RV BR B-62-0276

LOC STR

VERNON COUNTY

STATE PROJECT NUMBER
5377-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5377-00-70	WISC 2025362	1



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.029 MI

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		**UTILITIES**	
REFERENCE LINE	300'EB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
MARSH AREA		STORM SEWER	SS
WOODED OR SHRUB AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

DESIGN DESIGNATION 5377-00-00

A.A.D.T.	2025	=	220
A.A.D.T.	2045	=	252
D.H.V.		=	33
D.D.		=	62/38
T.		=	7.7%
DESIGN SPEED		=	30 MPH
ESALS		=	30,000

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), VERNON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

ACCEPTED FOR

VERNON COUNTY

10/18/24 *Phil Hewitt* Hwy Comm

Date (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

WESTBROOK
Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WISCONSIN 53588
PHONE (608) 588-7866
FAX (608) 588-7954

WISCONSIN AARON B. PALMER E-35695 RICHLAND CENTER, WI PROFESSIONAL ENGINEER

DATE: 10/17/24 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WESTBROOK ASSOCIATED ENGINEERS, INC.
Designer	WESTBROOK ASSOCIATED ENGINEERS, INC.
Project Manager	LORRAINE BETZEL, P.E.
Regional Examiner	SW REGION
Regional Supervisor	KYLE HEMP, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 10/18/24 *Lorraine Betzel* (Signature)

E

2

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	L	LENGTH OF CURVE
AC	ACRE	LF	LINEAR FOOT
AGG	AGGREGATE	LC	LONG CHORD OF CURVE
AH	AHEAD	LS	LUMP SUM
∠	ANGLE	MGAL	ONE THOUSAND GALLONS
AADT	ANNUAL AVERAGE DAILY TRAFFIC	MH	MANHOLE
AEW	APRON ENDWALL	ML OR M/L	MATCH LINE
ASPH	ASPHALTIC	NOM	NOMINAL
BK	BACK	NC	NORMAL CROWN
BC	BACK OF CURB	NB	NORTHBOUND
BAD	BASE AGGREGATE DENSE	NO	NUMBER
BL OR B/L	BASE LINE	OD	OUTSIDE DIAMETER
BM	BENCH MARK	PAVT	PAVEMENT
CB	CATCH BASIN	PLE	PERMANENT LIMITED EASEMENT
CL OR C/L	CENTER LINE	PC	POINT OF CURVATURE
Δ	CENTRAL ANGLE OR DELTA	PI	POINT OF INTERSECTION
CE	COMMERCIAL ENTRANCE	PT	POINT OF TANGENCY
CONC	CONCRETE	PCC	PORTLAND CEMENT CONCRETE
CSW	CONCRETE SIDEWALK	LB	POUND
CONST	CONSTRUCTION	PSI	POUNDS PER SQUARE INCH
CP	CONTROL POINT	PE	PRIVATE ENTRANCE
CO	COUNTY	PROJ	PROJECT
CTH	COUNTY TRUCK HIGHWAY	PL	PROPERTY LINE
CY	CUBIC YARD	PRW	PROPOSED RIGHT OF WAY
CP	CULVERT PIPE	R	RADIUS
C & G	CURB AND GUTTER	RL OR R/L	REFERENCE LINE
D	DEGREE OF CURVE	REQD	REQUIRED
DHV	DESIGN HOUR VOLUME	RT	RIGHT
DIA	DIAMETER	RHF	RIGHT HAND FORWARD
DD	DIRECTIONAL DISTRIBUTION	R/W	RIGHT OF WAY
DE	DRAINAGE EASEMENT	RD	ROAD
DWY	DRIVEWAY	RDWY	ROADWAY
EA	EACH	SHLDR	SHOULDER
EB	EASTBOUND	SW	SIDEWALK
EL OR ELEV	ELEVATION	SB	SOUTHBOUND
EMB	EMBANKMENT	SPECS	SPECIFICATIONS
EW	ENDWALL	SF	SQUARE FEET
EAT	ENERGY ABSORBING TERMINAL	SY	SQUARE YARD
ESALS	EQUIVALENT SINGLE AXLE LOADS	SDD	STANDARD DETAIL DRAWINGS
EXC	EXCAVATION	STH	STATE TRUNK HIGHWAY
EBS	EXCAVATION BELOW SUBGRADE	STA	STATION
EXIST	EXISTING	SE	SUPERELEVATION
FERT	FERTILIZER	SL OR S/L	SURVEY LINE
FE	FIELD ENTRANCE	TEMP	TEMPORARY
FL OR F/L	FLOW LINE	TI	TEMPORARY INTEREST
FT	FOOT	TLE	TEMPORARY LIMITED EASEMENT
FTMS	FREE TRAFFIC MANAGEMENT SYSTEM	TC	TOP OF CURB
HES	HIGH EARLY STRENGTH	TL OR T/L	TRANSIT LINE
HE	HIGHWAY EASEMENT	T	TRUCKS (PERCENT OF)
CWT	HUNDRED WEIGHT	TYP	TYPICAL
IN DIA	INCH DIAMETER	USH	UNITED STATES HIGHWAY
INL	INLET	VAR	VARIABLE
ID	INSIDE DIAMETER	VC	VERTICAL CURVE
INTERS	INTERSECTION	VPC	VERTICAL POINT OF CURVATURE
IH	INTERSTATE HIGHWAY	VPI	VERTICAL POINT OF INTERSECTION
INV	INVERT	VPT	VERTICAL POINT OF TANGENCY
JT	JOINT	W	WEST
LT	LEFT	WB	WESTBOUND
LHF	LEFT HAND FORWARD		

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
TYPICAL SECTIONS
ALIGNMENT DETAILS AND CONTROL POINTS
PERMANENT SIGNING

WISCONSIN DNR LIAISON

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DNR SERVICE CENTER
3550 MORMON COULEE RD
LA CROSSE, WI 54601
PHONE: (608) 406-7880
EMAIL: KAREN.KALVELAGE@WISCONSIN.GOV

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DESIGN CONSULTANT

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PHONE: (608) 588-7866
EMAIL: APALMER@WESTBROOKENG.COM

COUNTY HIGHWAY COMMISSIONER

PHIL HEWITT
VERNON COUNTY
1335 RAILROAD AVE
VIROQUA, WI 54665
PHONE: (608) 637-5452
EMAIL: PHIL.HEWITT@VERNONCOUNTY.ORG

UTILITIES CONTACTS

VERNON COMMUNICATIONS COOPERATIVE
COMMUNICATIONS
SCOTT FREDERICK
103 N MAIN ST
WESTBY, WI 54667
PHONE: (608) 634-7434
EMAIL: SFREDERICK@VERNONCOM.COOP

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS, OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

APPLY TACK COAT BETWEEN LAYERS OF HMA PAVEMENT AT A RATE OF 0.05 GAL/SY.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE, SUBBASE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYERS SHOWN ON THE PLAN IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL PREPARE AN EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND SUBMIT THE PLAN TO WISDOT AND WDNR FOR REVIEW AT LEAST 14 DAYS PRIOR TO THE PRECONSTRUCTION CONFERENCE.

EROSION CONTROL FEATURES, AS SHOWN IN THE PLANS, ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

APPLY SEED, MULCH, AND FERTILIZER TO ALL DISTURBED AREAS WITHIN 7 WORKING DAYS AFTER GRADING WORK IS COMPLETED.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS IS MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.

THE CONTRACTOR'S PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

THE 4-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED USING ONE (1) 2.25-INCH LOWER LAYER AND ONE (1) 1.75-INCH UPPER LAYER. THE PREFERRED LOWER LAYER IS 2.25-INCHES OF 3 LT 58-28 S. THE PREFERRED UPPER LAYER IS 1.75-INCHES OF 4 LT 58-28 S.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

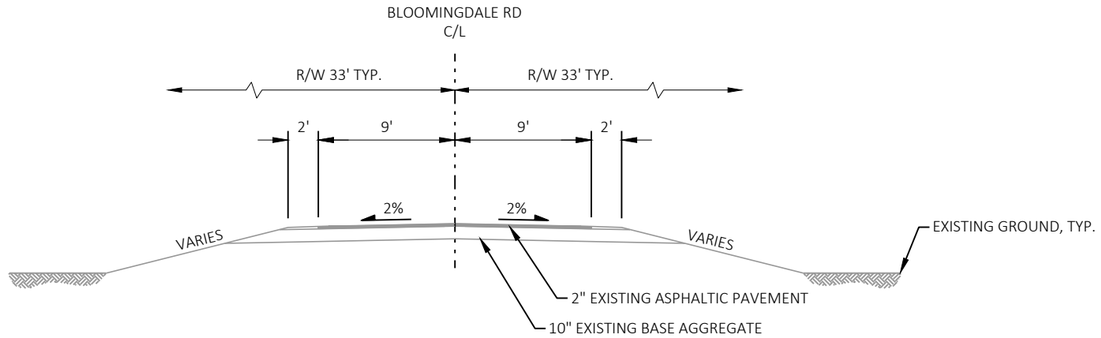
RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIPTURF:	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPETURF:			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT:	.70 - .95											
CONCRETE:	.80 - .95											
BRICK:	.70 - .80											
DRIVES, WALKS:	.75 - .85											
ROOFS:	.75 - .95											
GRAVEL ROADS, SHOULDERS:	.40 - .60											

TOTAL PROJECT AREA = 0.24 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.14 ACRES

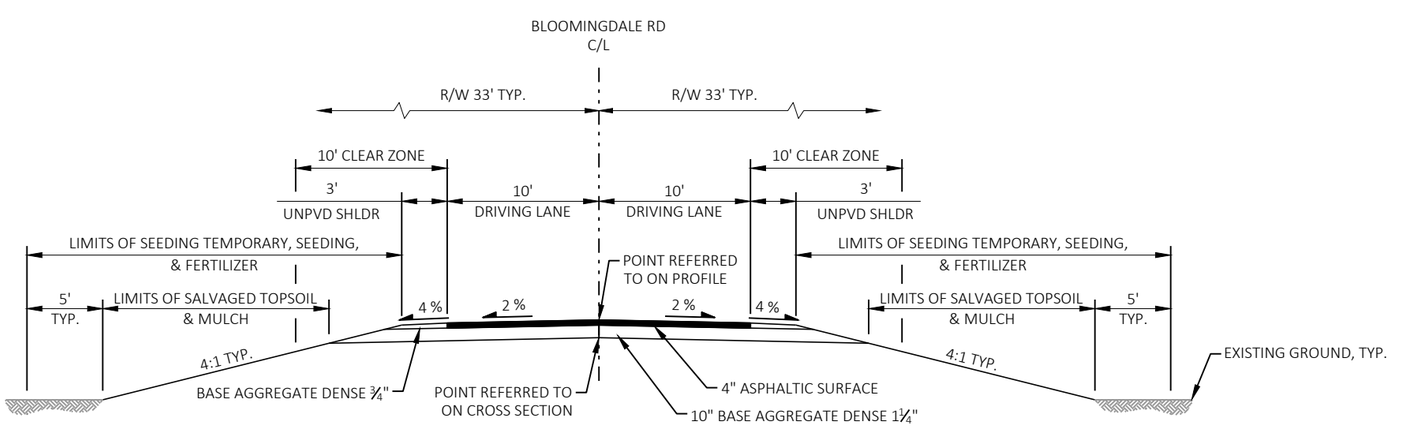
PROJECT NO: 5377-00-70	HWY: BLOOMINGDALE RD	COUNTY: VERNON	GENERAL NOTES	SHEET 2	E

2



EXISTING TYPICAL SECTION

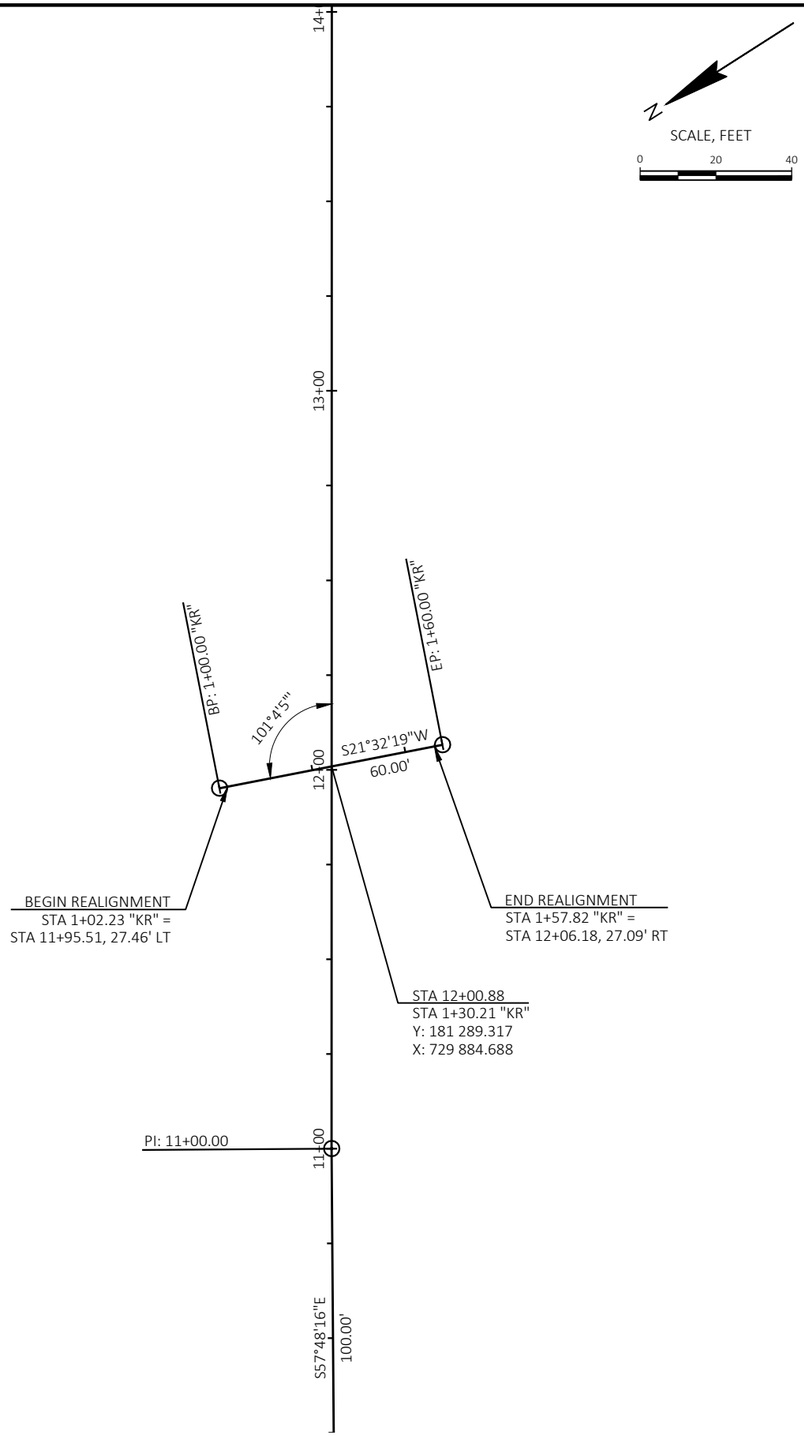
STA 11+23.67 - 12+74.33



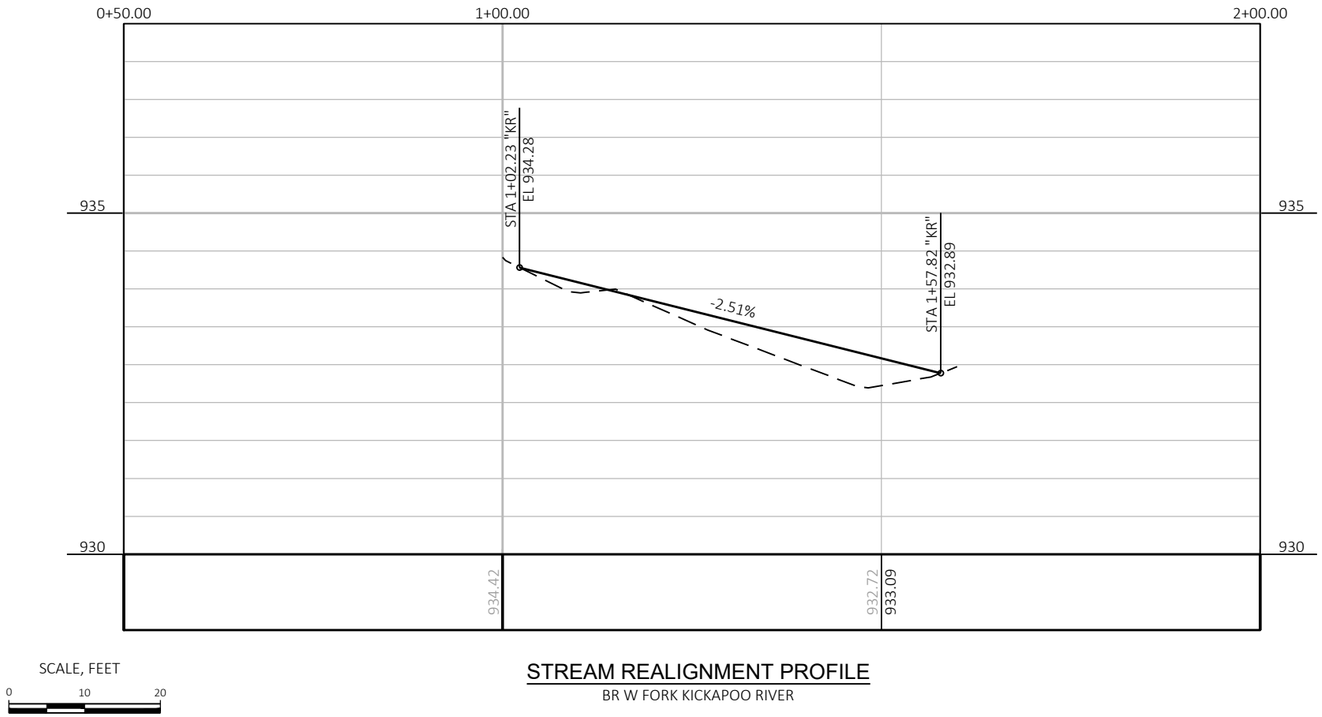
FINISHED TYPICAL SECTION

STA 11+23.67 - 12+74.33

PROJECT NO: 5377-00-70	HWY: BLOOMINGDALE RD	COUNTY: VERNON	TYPICAL SECTIONS	SHEET 3	E

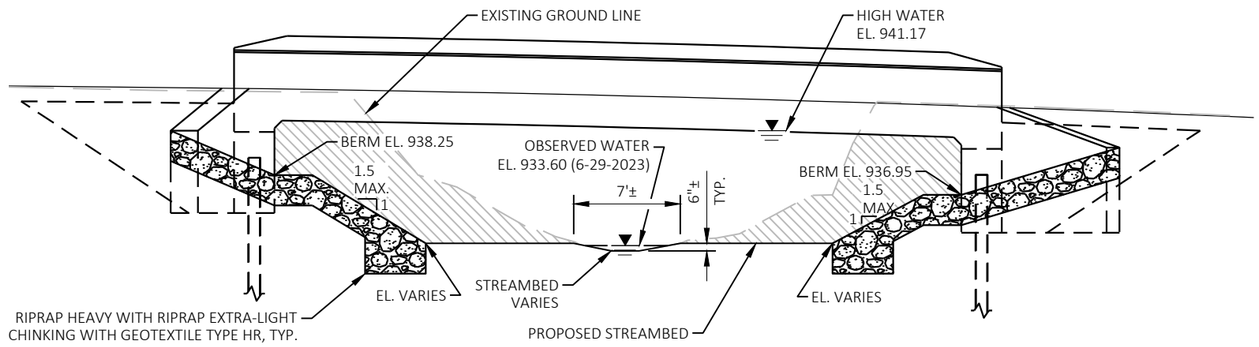


STREAM REALIGNMENT LAYOUT



STREAM REALIGNMENT PROFILE

BR W FORK KICKAPOO RIVER



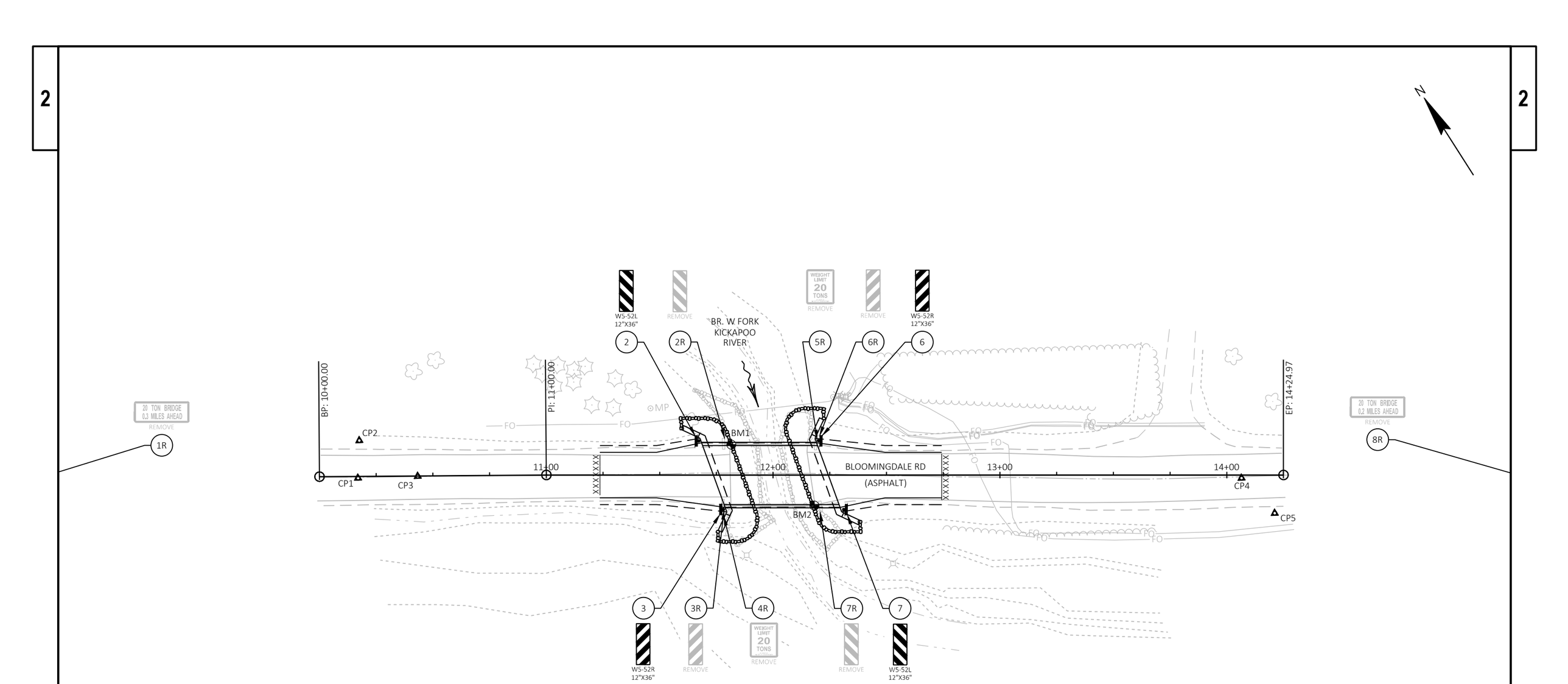
BR W FORK KICKAPOO RIVER TYPICAL SECTION

LOOKING NORTH

PROJECT NO: 5377-00-70	HWY: BLOOMINGDALE RD	COUNTY: VERNON	CONSTRUCTION DETAILS	SHEET 4	E

FILE NAME : G:\00-PROJECT FILES\2023\23151 ID 5377-00-00 T OF CLINTON, BLOOMINGDALE RD BR W FORK KICKAPOO RIVER BRIDGE\0-CAD\SHEETS\021001_CD.DWG
LAYOUT NAME - 021001_cd
PLOT DATE : 1/7/2025 2:17 PM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : VARIES
WISDOT/CADDS SHEET 42

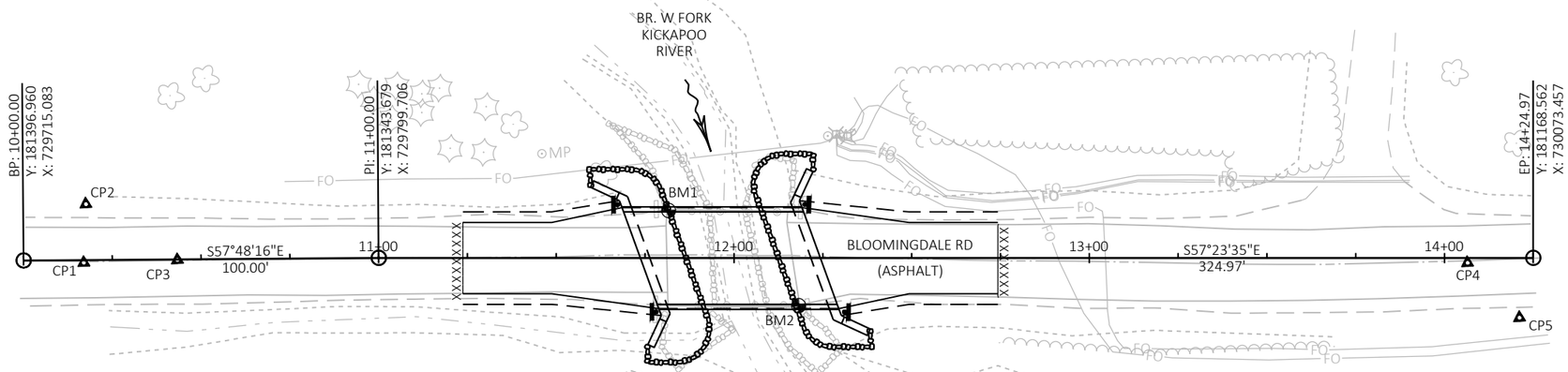
2



PROJECT NO: 5377-00-70	HWY: BLOOMINGDALE RD	COUNTY: VERNON	PERMANENT SIGNING	SHEET 5	E

FILE NAME : G:\00-PROJECT FILES\2023\23151 ID 5377-00-00 T OF CLINTON, BLOOMINGDALE RD BR W FORK KICKAPOO RIVER BRIDGE\0-CAD\SHEETS\023201_PS.DWG
LAYOUT NAME - 027201_ad

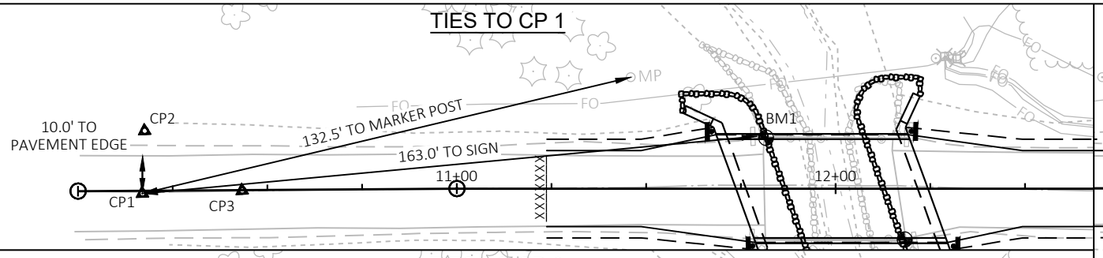
PLOT DATE : 8/26/2024 1:47 PM PLOT BY : GAVIN WIPPERFURTH PLOT NAME : PLOT SCALE : Custom



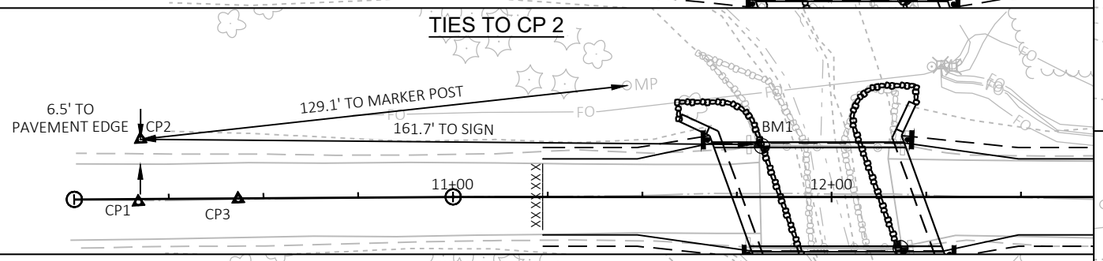
CONTROL POINTS

NO.	STATION	DESCRIPTION	Y	X
CP 1	10+16.96	GIN SPIKE SET, 0.6' RT	181 387.413	729 729.116
CP 2	10+17.65	3/8" REBAR SET, 15.9' LT	181 401.016	729 738.496
CP 3	10+43.29	RAILROAD SPIKE FOUND, 0.0'	181 373.881	729 751.713
CP 4	14+06.46	GIN SPIKE SET, 1.2' RT	181 177.511	730 035.211
CP 5	14+21.09	3/8" REBAR SET, 16.7' RT	181 156.597	730 061.195

TIES TO CP 1



TIES TO CP 2



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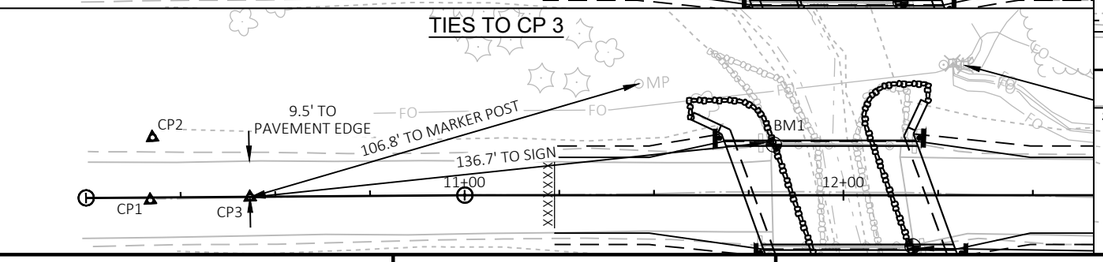

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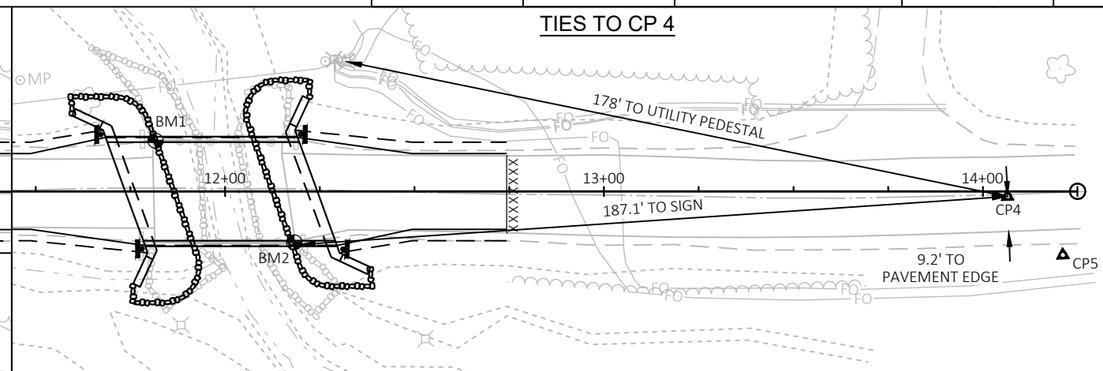

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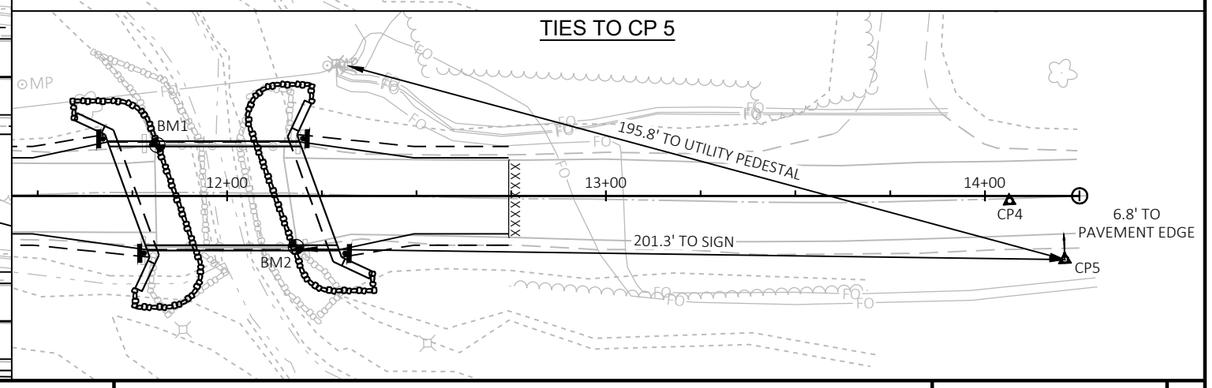


PROJECT NO: 5377-00-70	HWY: BLOOMINGDALE RD	COUNTY: VERNON	ALIGNMENT DETAILS AND CONTROL POINTS	SHEET 6	E

FILE NAME : G:\00-PROJECT FILES\2023\23151 ID 5377-00-00 T OF CLINTON, BLOOMINGDALE RD BR W FORK KICKAPOO RIVER BRIDGE\0-CAD\SHEETS\027201_AD.DWG
LAYOUT NAME - 027201_ad
PLOT DATE : 8/26/2024 2:18 PM PLOT BY : GAVIN WIPPERFURTH PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

Estimate Of Quantities

5377-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0110	Clearing	SY	4.000	4.000
0004	201.0210	Grubbing	SY	4.000	4.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-62-167	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	107.000	107.000
0010	206.1001	Excavation for Structures Bridges (structure) 01. B-62-0276	EACH	1.000	1.000
0012	210.1500	Backfill Structure Type A	TON	320.000	320.000
0014	213.0100	Finishing Roadway (project) 01. 5377-00-70	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	18.000	18.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	220.000	220.000
0020	455.0605	Tack Coat	GAL	18.000	18.000
0022	465.0105	Asphaltic Surface	TON	56.000	56.000
0024	502.0100	Concrete Masonry Bridges	CY	187.000	187.000
0026	502.3200	Protective Surface Treatment	SY	147.000	147.000
0028	502.3210	Pigmented Surface Sealer	SY	50.000	50.000
0030	505.0400	Bar Steel Reinforcement HS Structures	LB	4,650.000	4,650.000
0032	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	30,030.000	30,030.000
0034	516.0500	Rubberized Membrane Waterproofing	SY	14.000	14.000
0036	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	490.000	490.000
0038	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	160.000	160.000
0040	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5377-00-70	EACH	1.000	1.000
0042	619.1000	Mobilization	EACH	1.000	1.000
0044	624.0100	Water	MGAL	2.400	2.400
0046	625.0500	Salvaged Topsoil	SY	55.000	55.000
0048	627.0200	Mulching	SY	55.000	55.000
0050	628.1504	Silt Fence	LF	250.000	250.000
0052	628.1520	Silt Fence Maintenance	LF	410.000	410.000
0054	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0056	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0058	628.6005	Turbidity Barriers	SY	140.000	140.000
0060	629.0210	Fertilizer Type B	CWT	0.250	0.250
0062	630.0130	Seeding Mixture No. 30	LB	9.000	9.000
0064	630.0200	Seeding Temporary	LB	10.000	10.000
0066	630.0500	Seed Water	MGAL	7.400	7.400
0068	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0070	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0072	638.2602	Removing Signs Type II	EACH	8.000	8.000
0074	638.3000	Removing Small Sign Supports	EACH	8.000	8.000
0076	642.5001	Field Office Type B	EACH	1.000	1.000
0078	643.0420	Traffic Control Barricades Type III	DAY	1,725.000	1,725.000
0080	643.0705	Traffic Control Warning Lights Type A	DAY	3,450.000	3,450.000
0082	643.0900	Traffic Control Signs	DAY	1,350.000	1,350.000
0084	643.5000	Traffic Control	EACH	1.000	1.000
0086	645.0111	Geotextile Type DF Schedule A	SY	62.000	62.000
0088	645.0120	Geotextile Type HR	SY	204.000	204.000
0090	650.4500	Construction Staking Subgrade	LF	100.000	100.000
0092	650.5000	Construction Staking Base	LF	100.000	100.000
0094	650.6501	Construction Staking Structure Layout (structure) 01. B-62-0276	EACH	1.000	1.000
0096	650.9911	Construction Staking Supplemental Control (project) 01. 5377-00-70	EACH	1.000	1.000
0098	650.9920	Construction Staking Slope Stakes	LF	100.000	100.000

Estimate Of Quantities

5377-00-70

Line	Item	Item Description	Unit	Total	Qty
0100	690.0150	Sawing Asphalt	LF	40.000	40.000
0102	715.0502	Incentive Strength Concrete Structures	DOL	1,122.000	1,122.000
0104	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0106	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0108	SPV.0035	Special 01. Riprap Heavy With Riprap Extra-Light Chinking	CY	125.000	125.000
0110	SPV.0060	Special 01. Stream Realignment Structure B-62-0276	EACH	1.000	1.000

DIVISION	FROM/TO STATION	205.0100 EXCAVATION COMMON (1) CUT (2)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5) FACTOR 1.25	MASS ORDINATE +/- (6)	WASTE (7)
DIVISION 1								
WEST APPROACH	11+23.67/11+75.75	44	5	39	6	8	32	32
DIVISION 1 SUBTOTAL		44	5	39	6	8	32	32
DIVISION 2								
EAST APPROACH	12+22.25/12+74.33	63	5	58	1	1	57	57
DIVISION 2 SUBTOTAL		63	5	58	1	1	57	57
GRAND TOTAL		107	10	97	7	9	88	88

NOTES:
(1) EXCAVATION COMMON IS THE SUM OF THE CUT COLUMN. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) SALVAGED/UNSUABLE PAVEMENT MATERIAL INCLUDES EXISTING ASPHALT.
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(5) EXPANDED FILL FACTOR = 1.25
(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(7) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

CLEARING AND GRUBBING

STATION	LOCATION	201.0110 CLEARING SY	201.0210 GRUBBING SY
11+63	WEST APPROACH, LT	4	4
	TOTAL	4	4

ASPHALT ITEMS

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
11+23.67	-	11+73.67	WEST APPROACH	9	28
12+24.33	-	12+74.33	EAST APPROACH	9	28
			TOTAL	18	56

BASE AGGREGATE DENSE

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
11+23.67	-	11+73.67	WEST APPROACH	9	110	1.2
12+24.33	-	12+74.33	EAST APPROACH	9	110	1.2
			TOTAL	18	220	2.4

SILT FENCE

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
11+17	-	11+72	WEST APPROACH, LT	60	120
11+98	-	12+81	EAST APPROACH, LT	85	170
12+27	-	12+81	EAST APPROACH, RT	60	120
			UNDISTRIBUTED	45	---
			TOTAL	250	410

FINISHING ITEMS

STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
11+24	-	11+74	WEST APPROACH, LT	7	7	0.04	1	2	1.3
11+24	-	11+74	WEST APPROACH, RT	16	16	0.05	2	2	1.7
12+24	-	12+74	EAST APPROACH, LT	13	13	0.05	2	2	1.6
12+24	-	12+74	EAST APPROACH, RT	9	9	0.04	2	2	1.3
			UNDISTRIBUTED	10	10	0.07	2	2	1.5
			TOTAL	55	55	0.25	9	10	7.4

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.191 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
ID 5377-00-70	4	2
TOTAL	4	2

TURBIDITY BARRIERS

LOCATION	628.6005 SY
WEST ABUTMENT	53
EAST ABUTMENT	60
UNDISTRIBUTED	27
TOTAL	140

TRAFFIC CONTROL

LOCATION	DURATION DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 DAY	643.5000 TRAFFIC CONTROL EACH
WEST APPROACH	75	9	675	18	1,350	7	525	---
EAST APPROACH	75	9	675	18	1,350	7	525	---
UNDISTRIBUTED	75	5	375	10	750	4	300	---
PROJECT	---	---	---	---	---	---	---	1
TOTAL		23	1,725	46	3,450	18	1,350	1

PLACE TRAFFIC CONTROL IN ACCORDANCE WITH SDD 15C2 "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTION". PLACEMENT SUBJECT TO ENGINEER APPROVAL.

PERMANENT SIGNING

STATION	LOCATION	SIGN NUMBER	SIGN CODE	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
---	WEST APPROACH, LT	1R	R12-55	---	---	1	1	20 TON BRIDGE .3 MILES AHEAD
11+67	WEST APPROACH, LT	2	W5-52L	1	3	---	---	BRIDGE HASH MARKS
11+78	WEST APPROACH, RT	3	W5-52R	1	3	---	---	BRIDGE HASH MARKS
11+79	WEST APPROACH, LT	2R	W5-52L	---	---	1	1	BRIDGE HASH MARKS
11+79	WEST APPROACH, RT	3R	W5-52R	---	---	1	1	BRIDGE HASH MARKS
11+79	WEST APPROACH, RT	4R	R12-5	---	---	1	1	WEIGHT LIMIT 20 TON
12+17	EAST APPROACH, LT	5R	R12-5	---	---	1	1	WEIGHT LIMIT 20 TON
12+17	EAST APPROACH, LT	6	W5-52R	1	3	---	---	BRIDGE HASH MARKS
12+17	EAST APPROACH, LT	6R	W5-52R	---	---	1	1	BRIDGE HASH MARKS
12+20	EAST APPROACH, RT	7R	W5-52L	---	---	1	1	BRIDGE HASH MARKS
12+31	EAST APPROACH, RT	7	W5-52L	1	3	---	---	BRIDGE HASH MARKS
---	EAST APPROACH, RT	8R	R12-55	---	---	1	1	20 TON BRIDGE .2 MILES AHEAD
	TOTAL			4	12	8	8	

CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT 01. B-62-0276 EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 01. 5377-00-70 EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
11+23.67	-	11+73.67	WEST APPROACH	50	50	---	---	50
12+24.33	-	12+74.33	EAST APPROACH	50	50	---	---	50
			PROJECT	---	---	1	1	---
			TOTAL	100	100	1*	1	100

*CATEGORY 0020

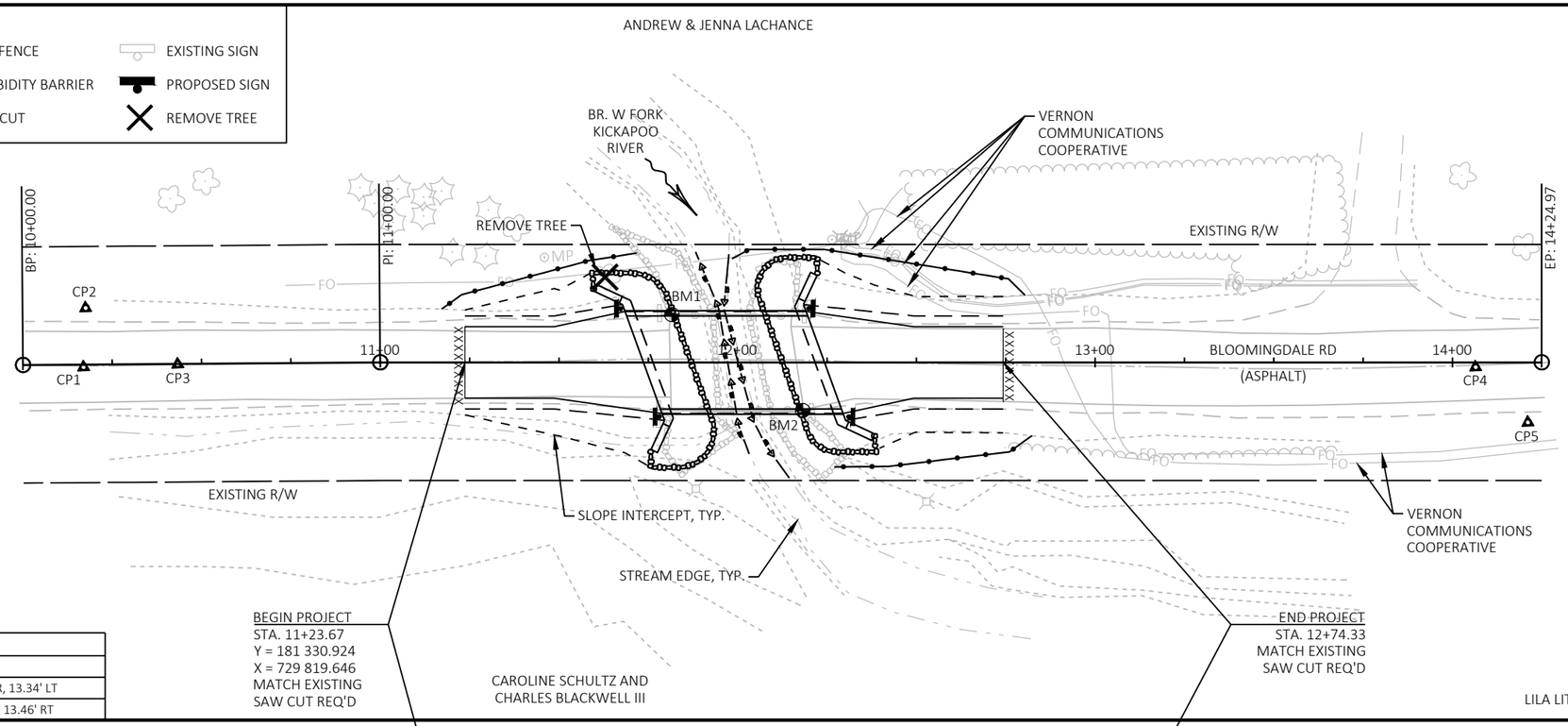
SAWING ASPHALT

STATION	LOCATION	690.0150 LF
11+23.67	WEST APPROACH	19
12+74.33	EAST APPROACH	21
	TOTAL	40

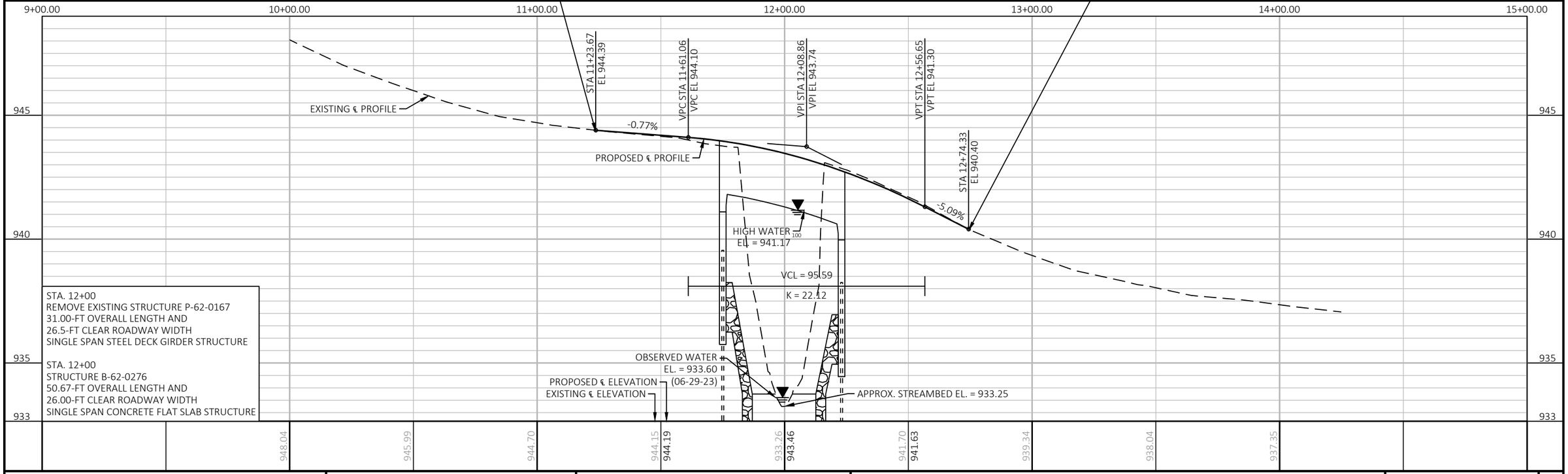
ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

LEGEND

- SLOPE INTERCEPT
- SURFACE WATER FLOW
- STREAM EDGE
- SILT FENCE
- TURBIDITY BARRIER
- SAWCUT
- EXISTING SIGN
- PROPOSED SIGN
- REMOVE TREE



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1	11+81.57	943.12	BOLT ON NORTHWEST HEADER, 13.34' LT
BM 2	12+18.16	943.30	BOLT ON SOUTHEAST HEADER, 13.46' RT



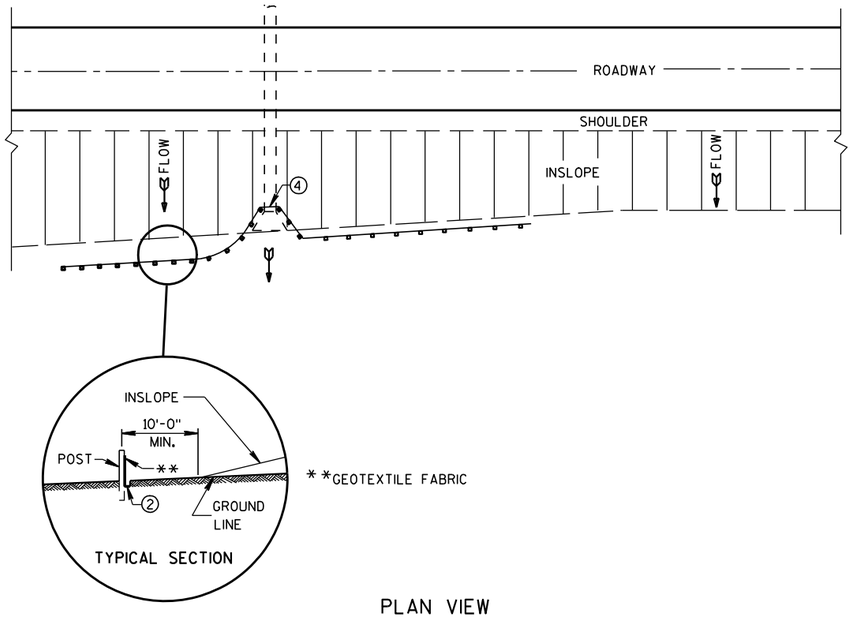
STA. 12+00
REMOVE EXISTING STRUCTURE P-62-0167
31.00-FT OVERALL LENGTH AND
26.5-FT CLEAR ROADWAY WIDTH
SINGLE SPAN STEEL DECK GIRDER STRUCTURE

STA. 12+00
STRUCTURE B-62-0276
50.67-FT OVERALL LENGTH AND
26.00-FT CLEAR ROADWAY WIDTH
SINGLE SPAN CONCRETE FLAT SLAB STRUCTURE

PROJECT NO: 5377-00-70	HWY: BLOOMINGDALE RD	COUNTY: VERNON	PLAN AND PROFILE	SHEET 10	E

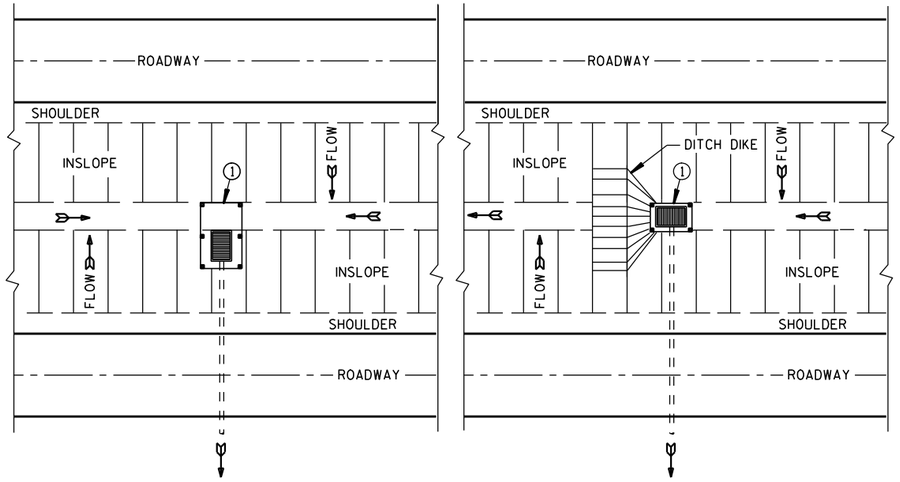
Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



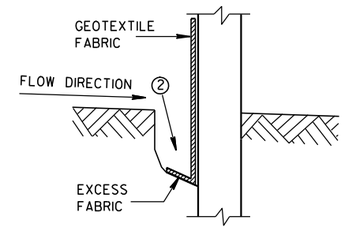
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

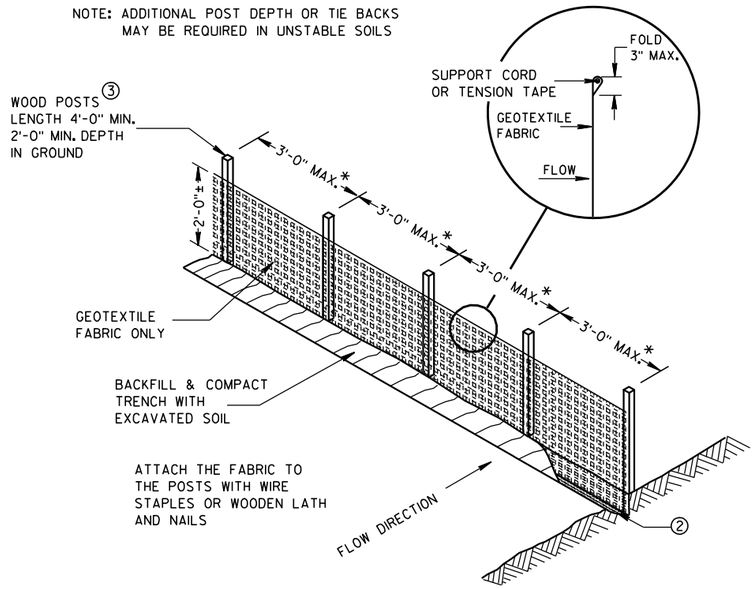
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

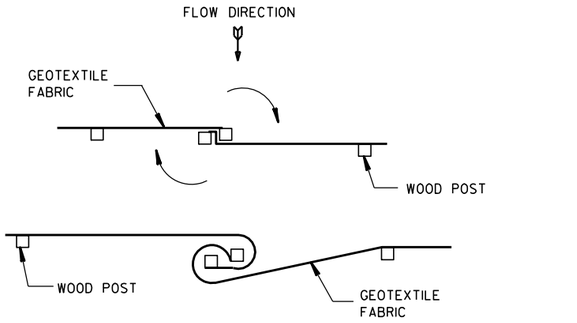
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



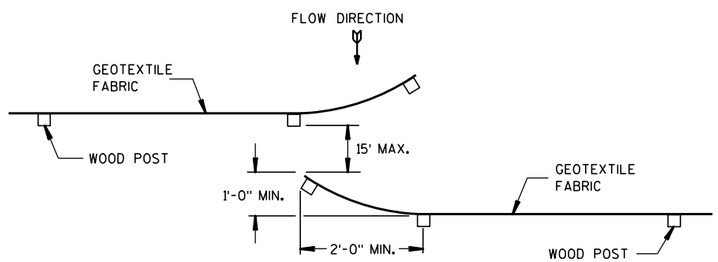
TRENCH DETAIL



SILT FENCE

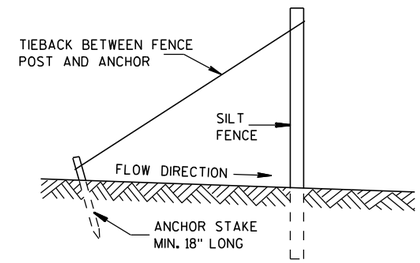


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

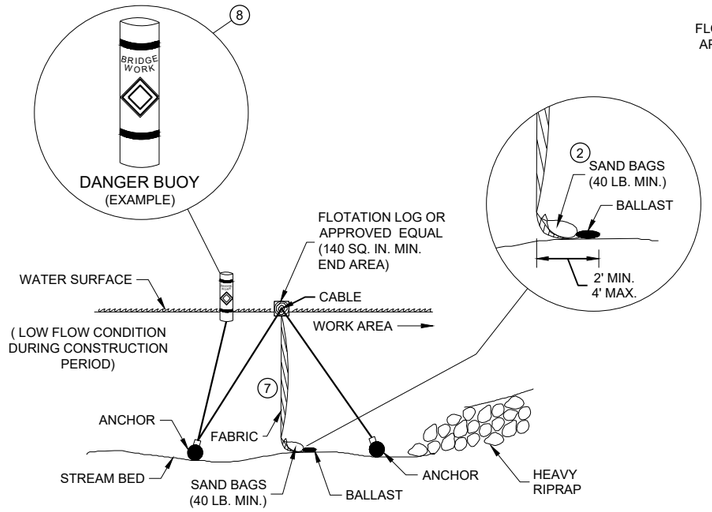
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

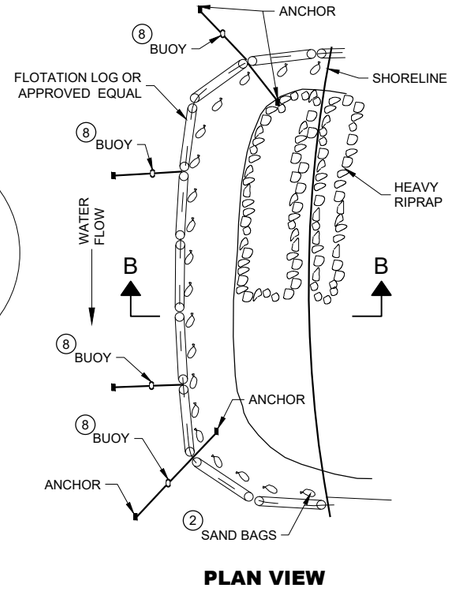
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

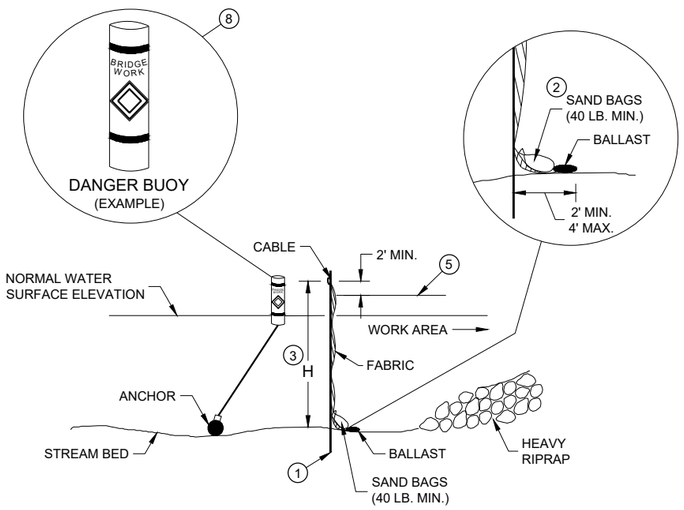


SECTION B - B

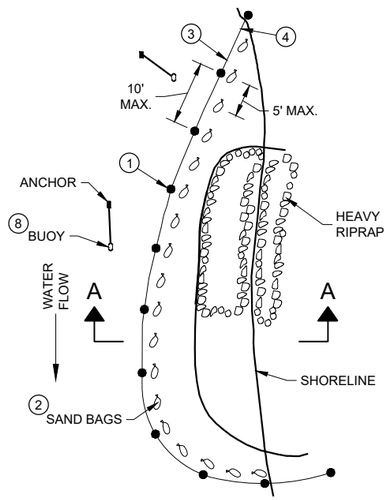


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

(1) DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

(2) SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

(3) WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.

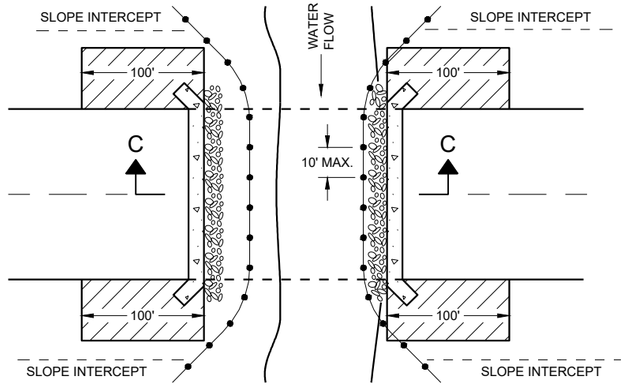
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

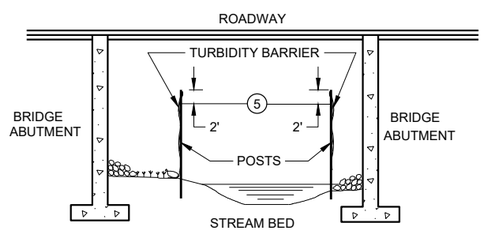
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(7) ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

(8) USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

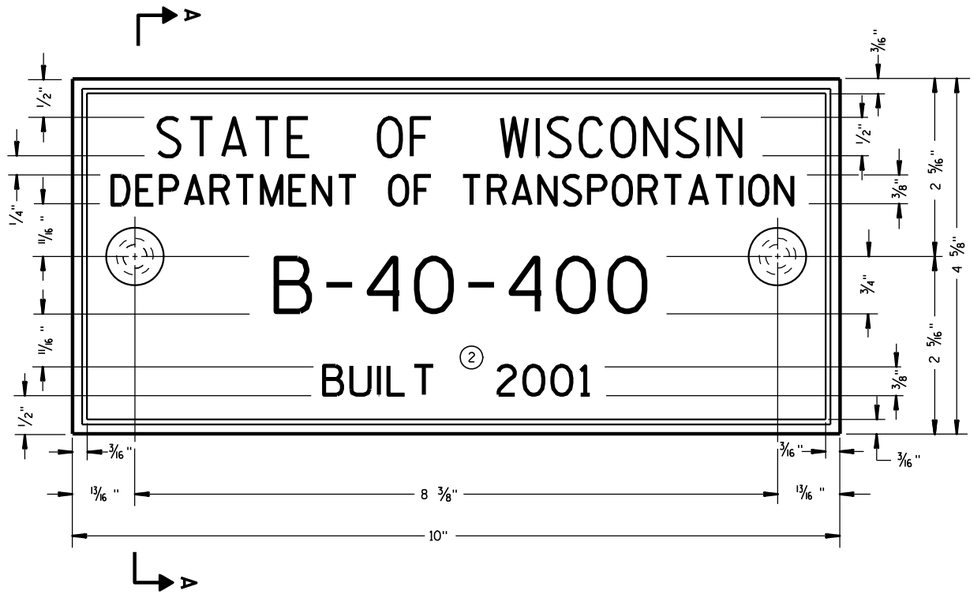
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA

6
SDD 08E11 - 02



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

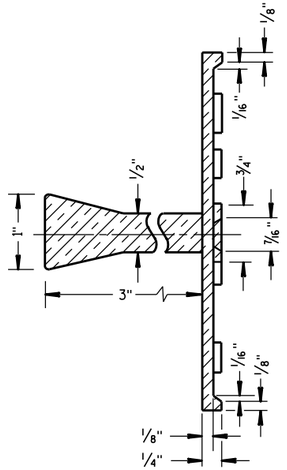
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

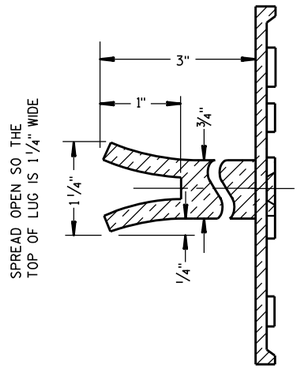
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

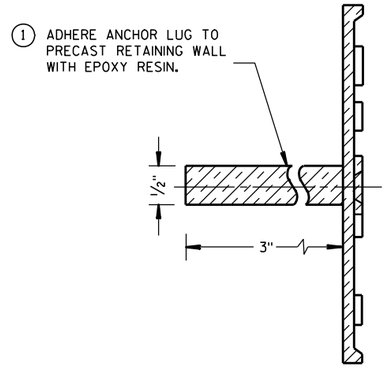
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

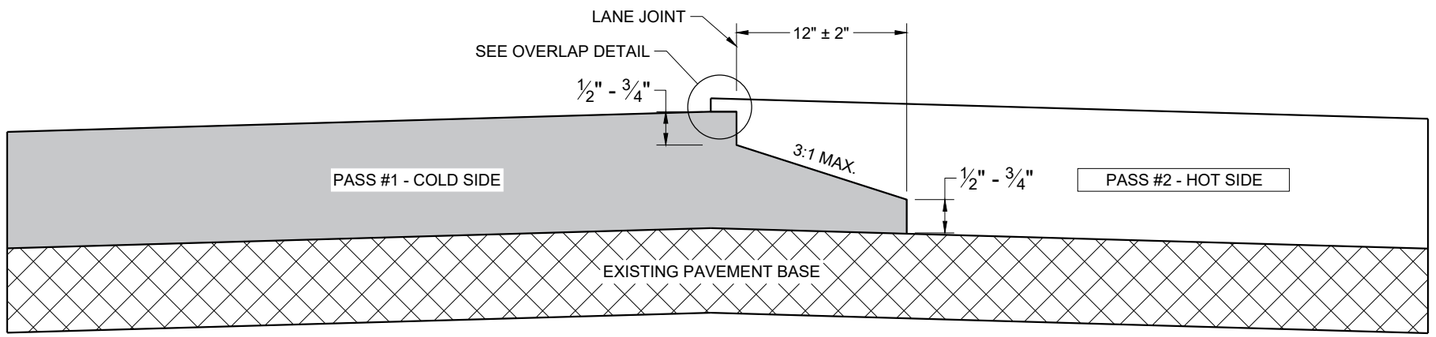
3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

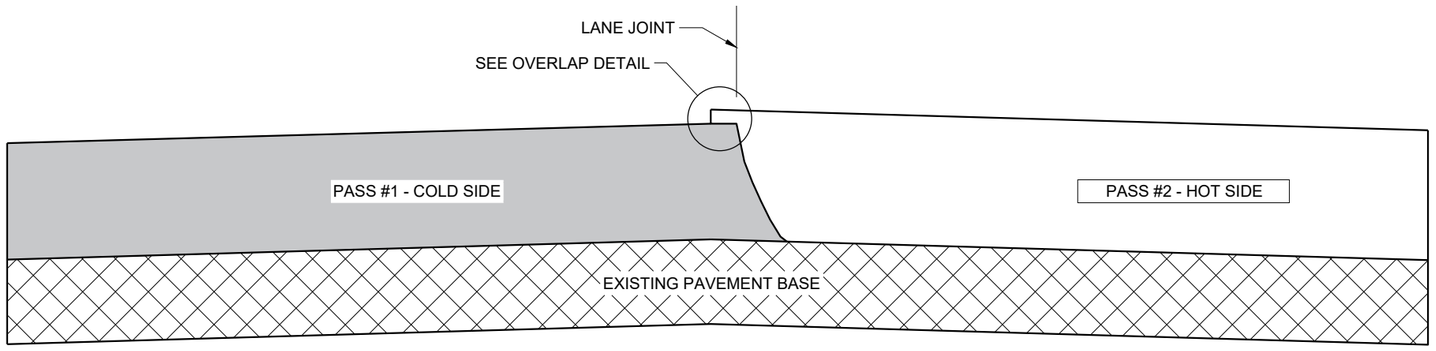
FHWA

6

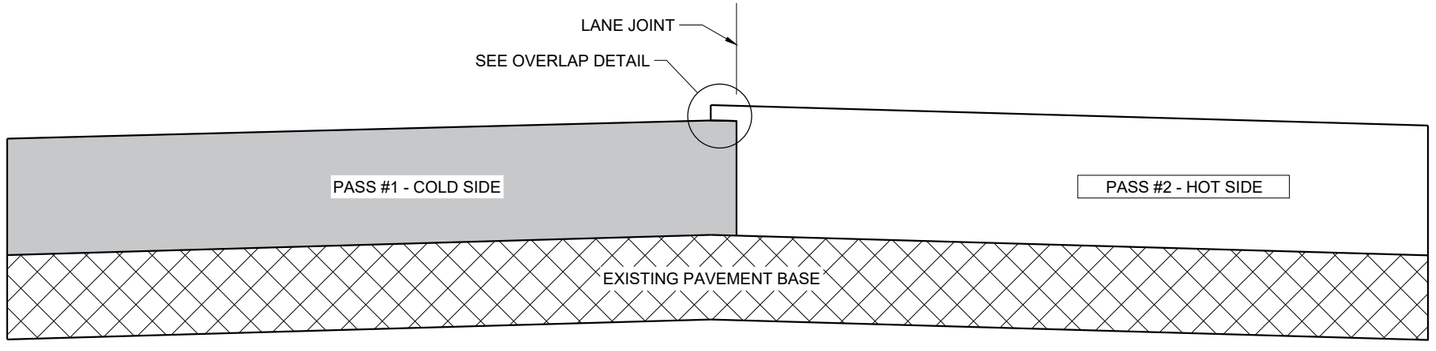
S.D.D. 12 A 3-10



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

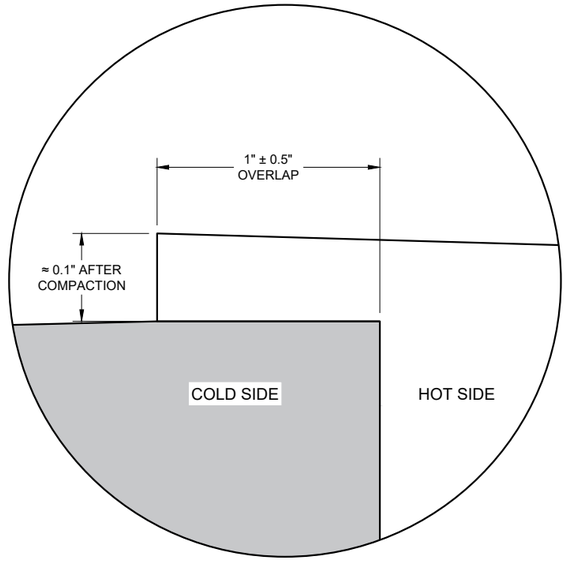
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

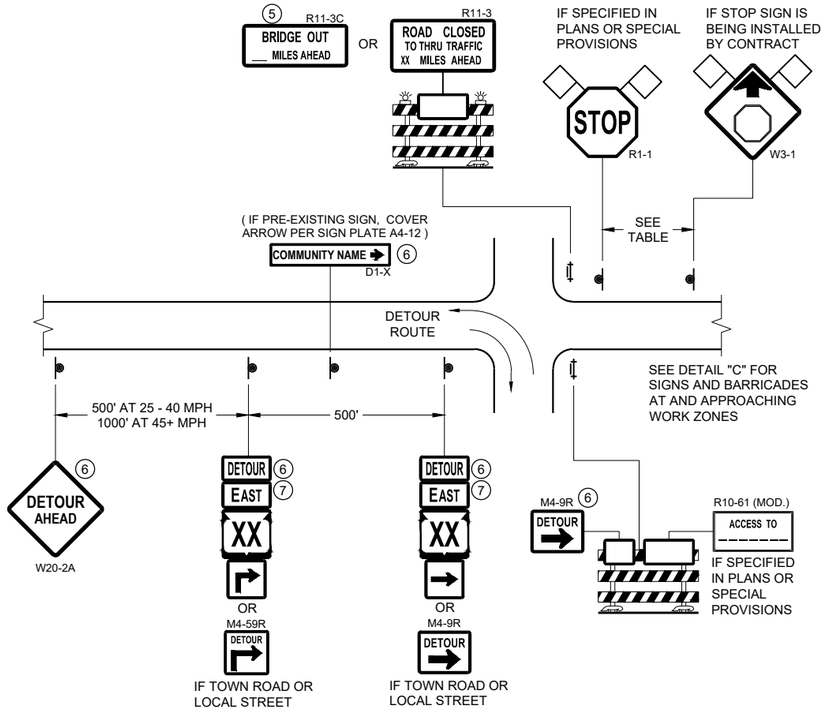
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

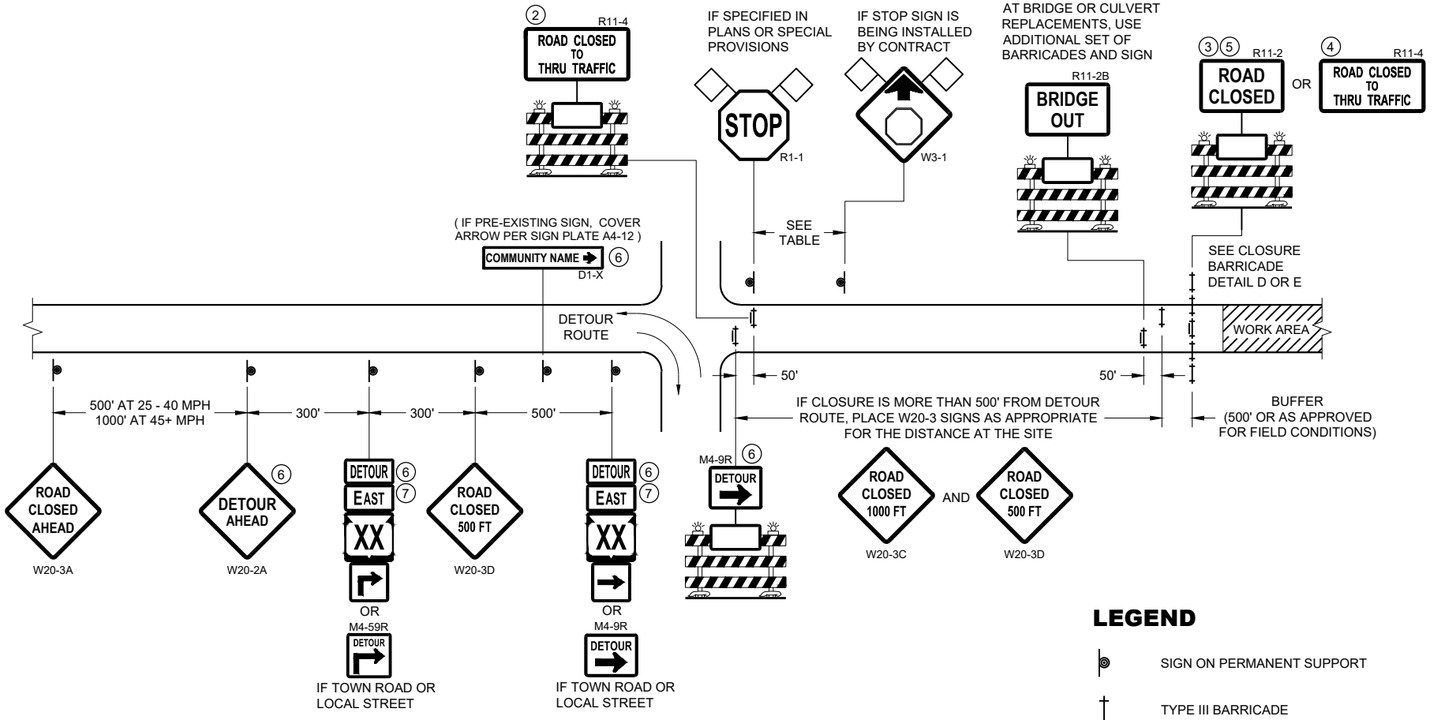
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



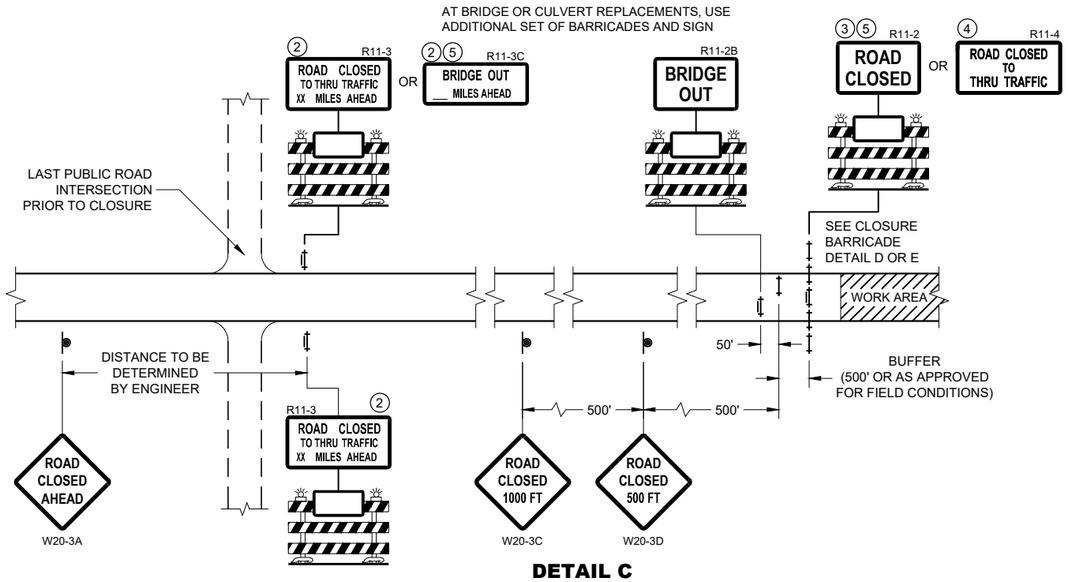
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

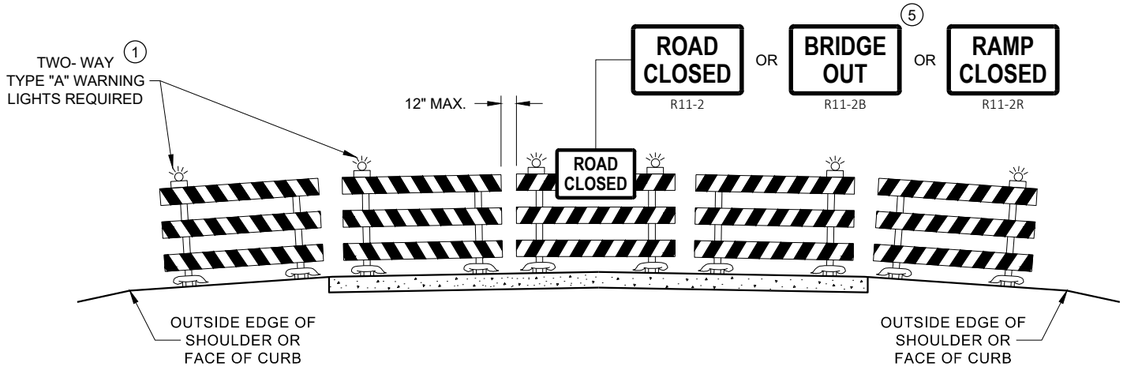
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

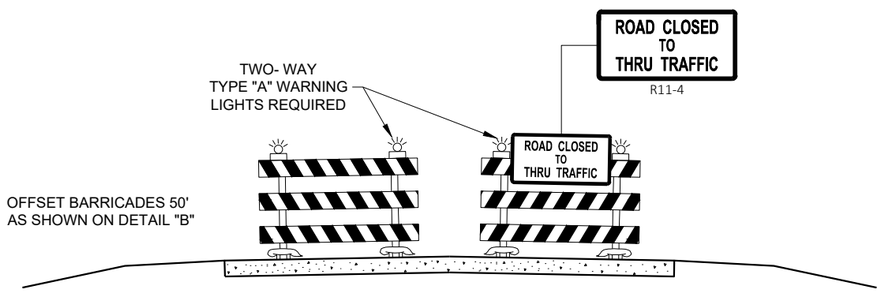
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

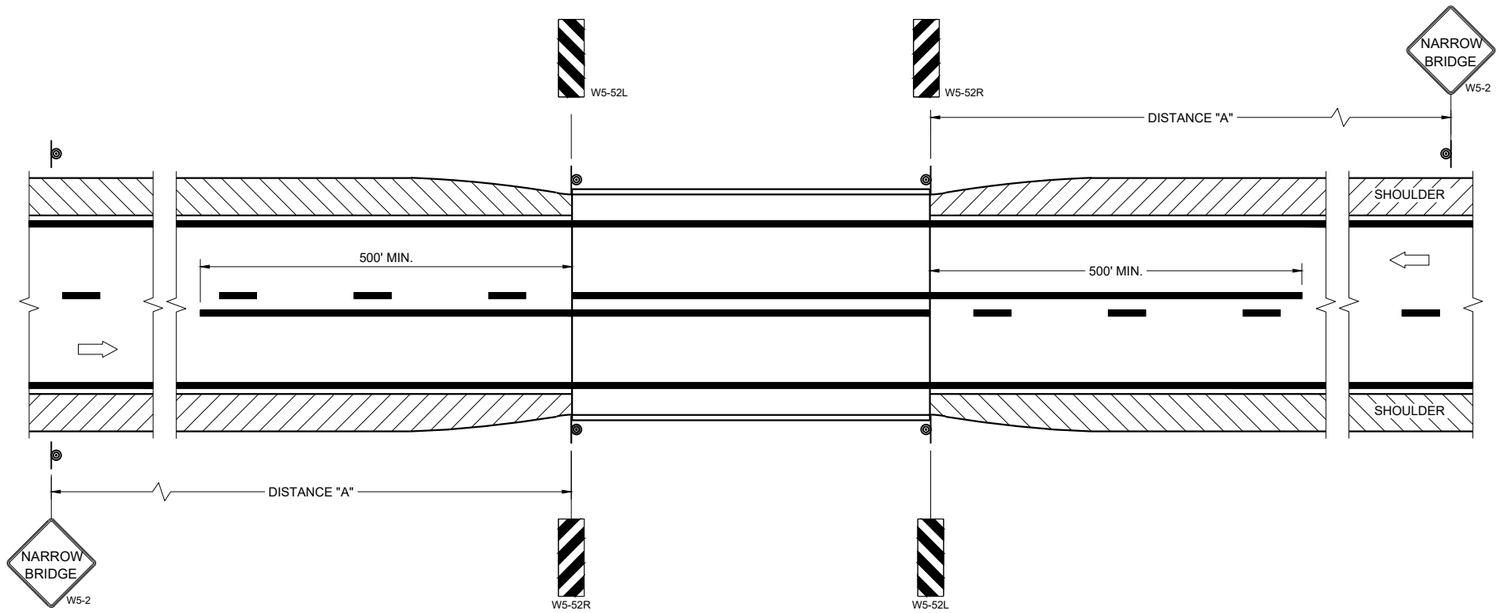
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

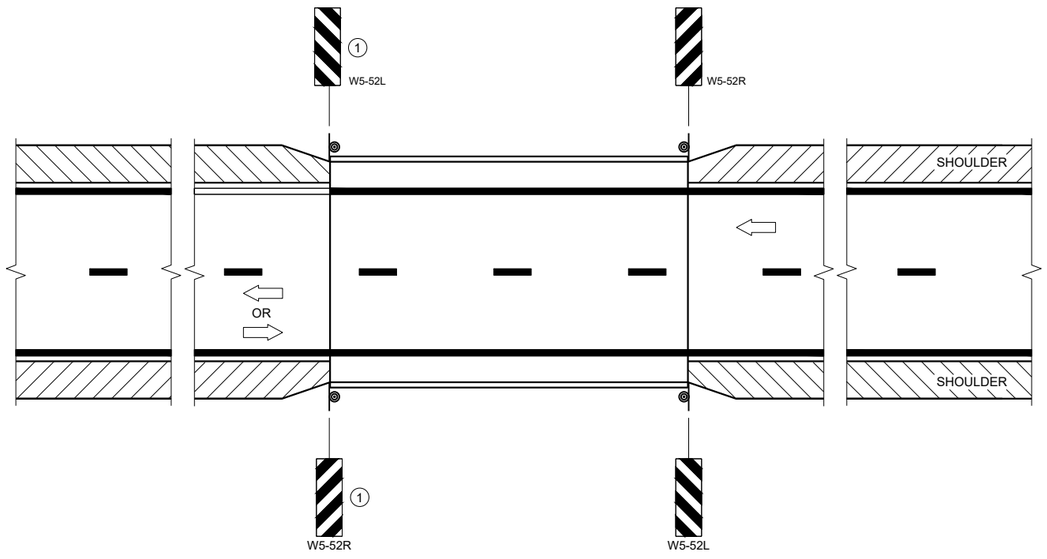
6

SDD 15C02 - 09b



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2

WARRANTING CRITERIA:
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

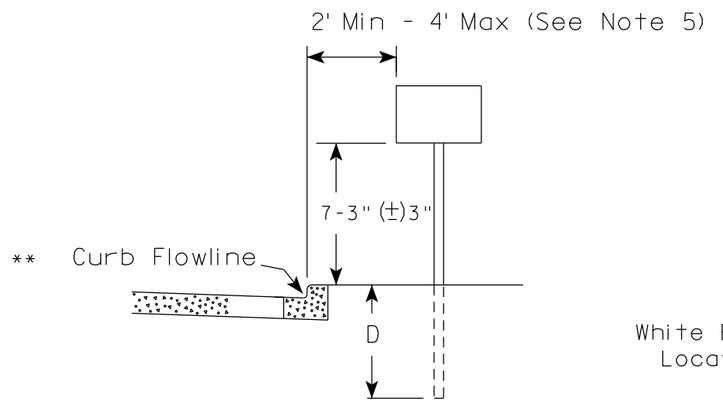
SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

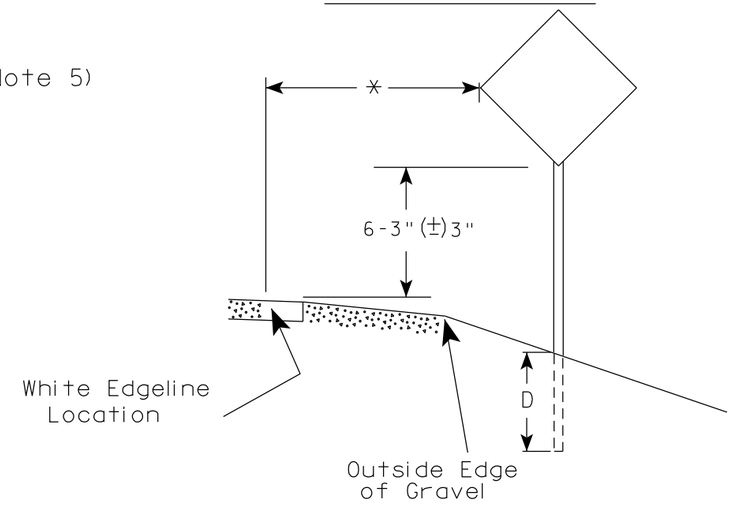
APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

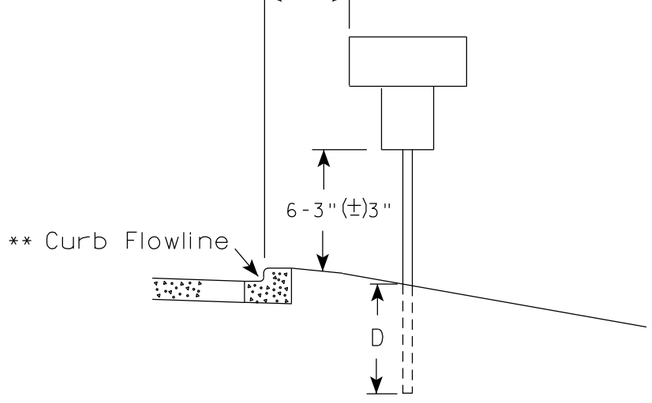
6
SDD 15C06-12

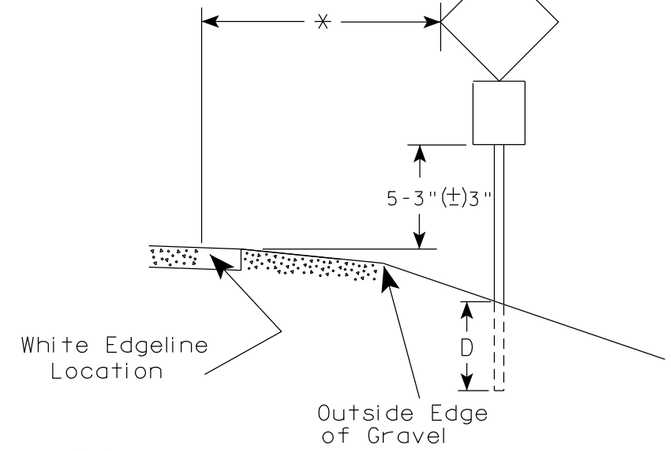
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

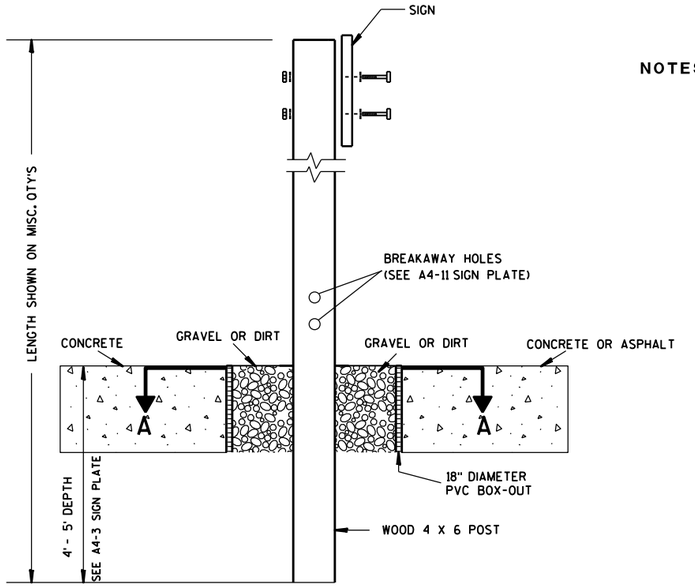
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

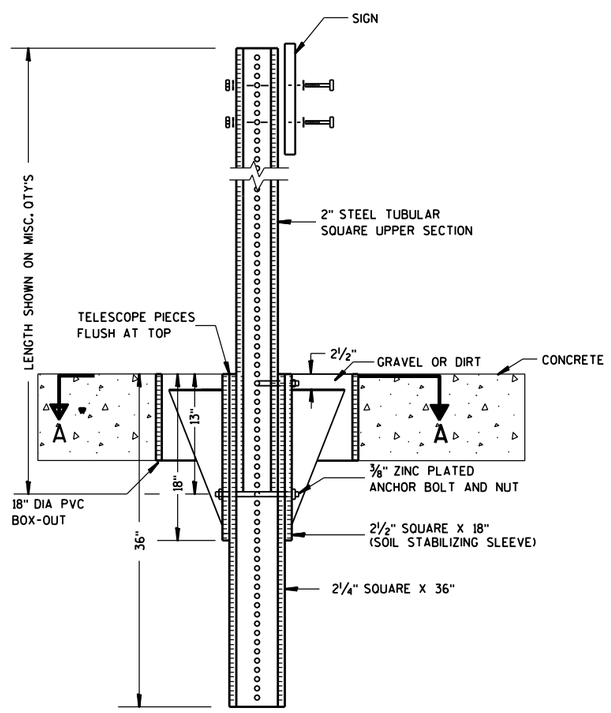
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 19	E



ELEVATION VIEW

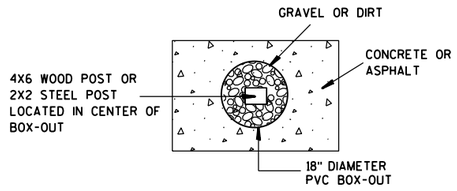
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

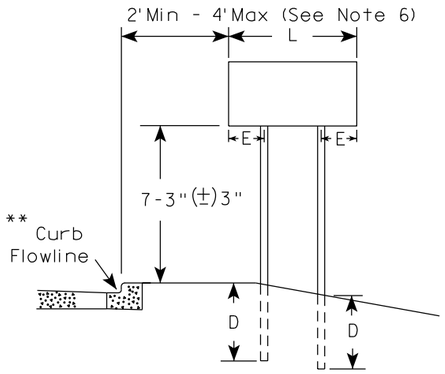
APPROVED Matthew R Rauch
for State Traffic Engineer

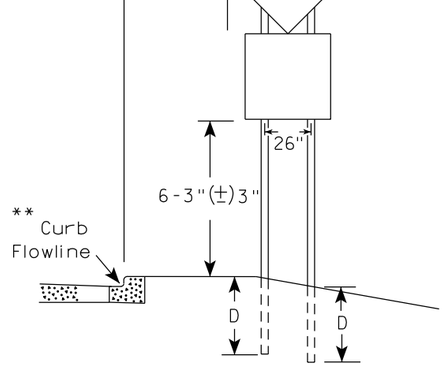
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

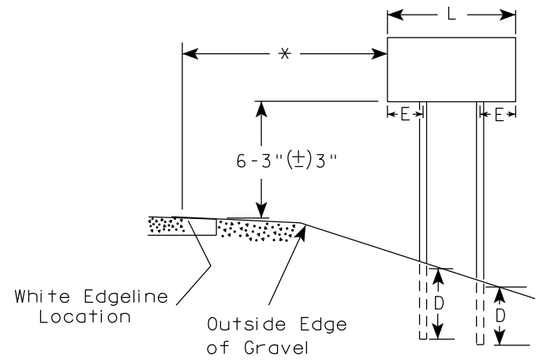
URBAN AREA

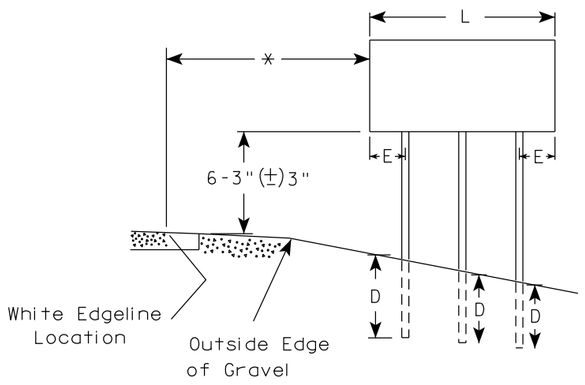


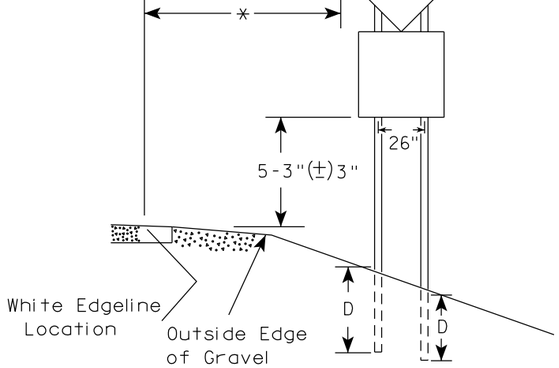


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±) 3".

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

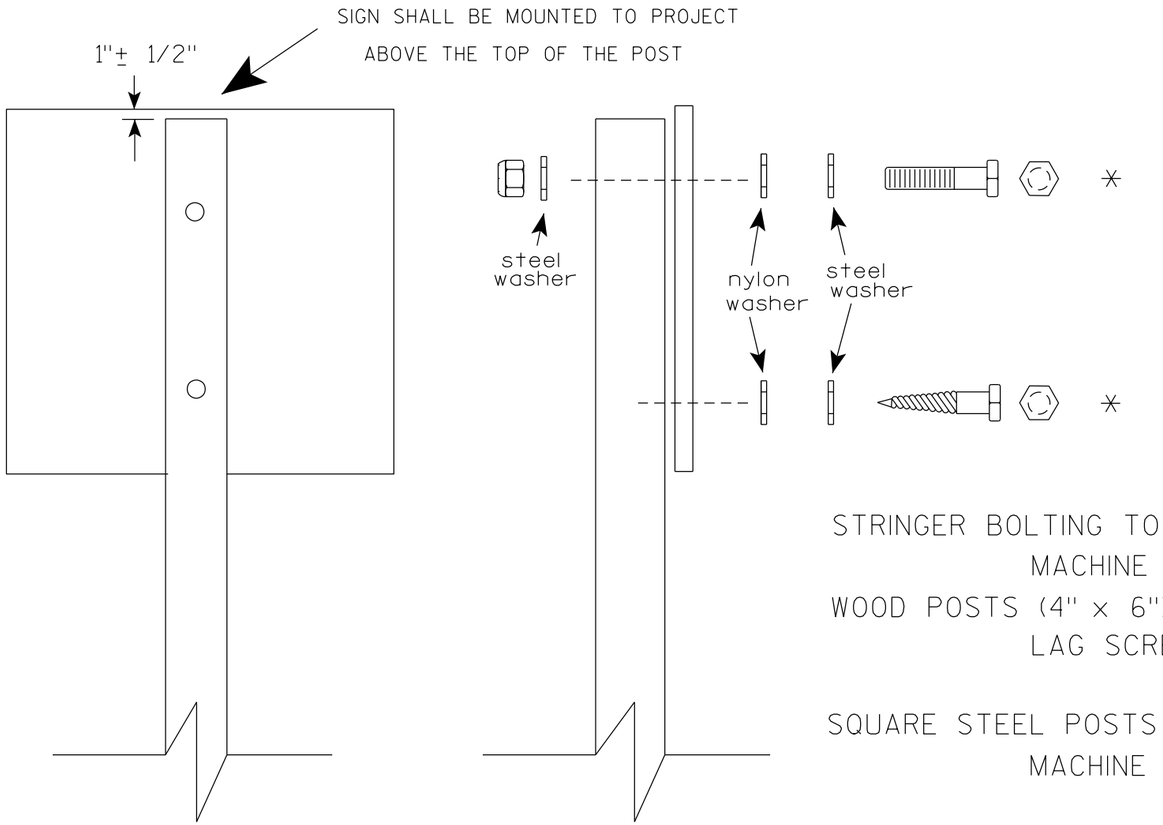
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 21	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

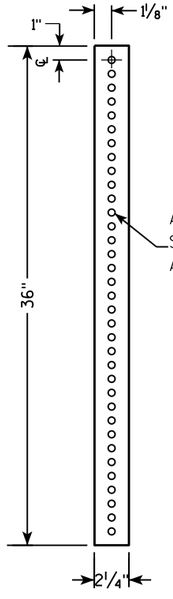
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

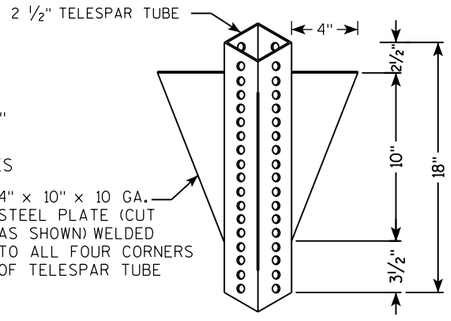
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

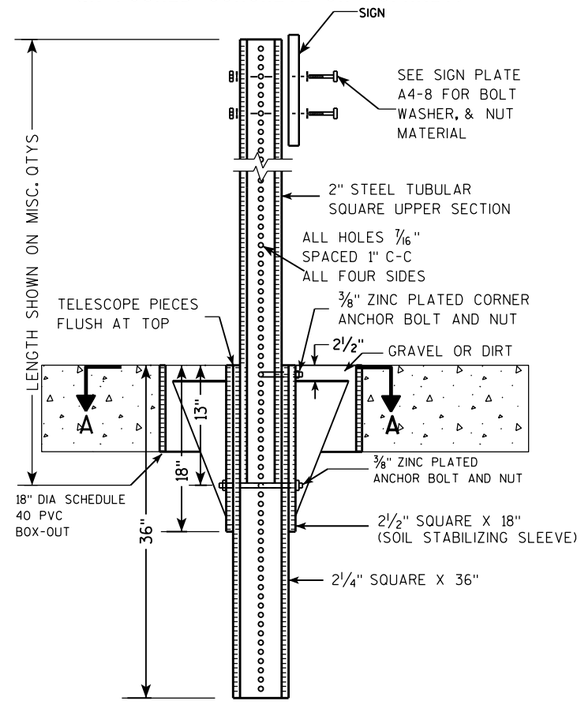
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



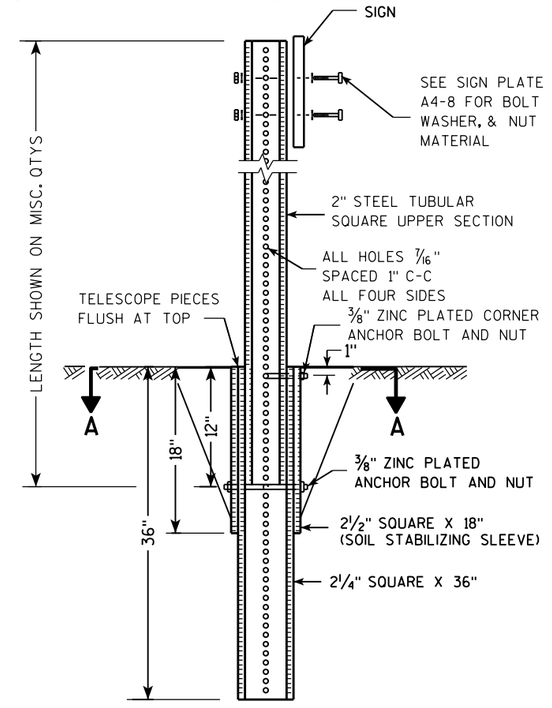
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

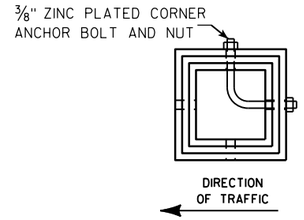


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

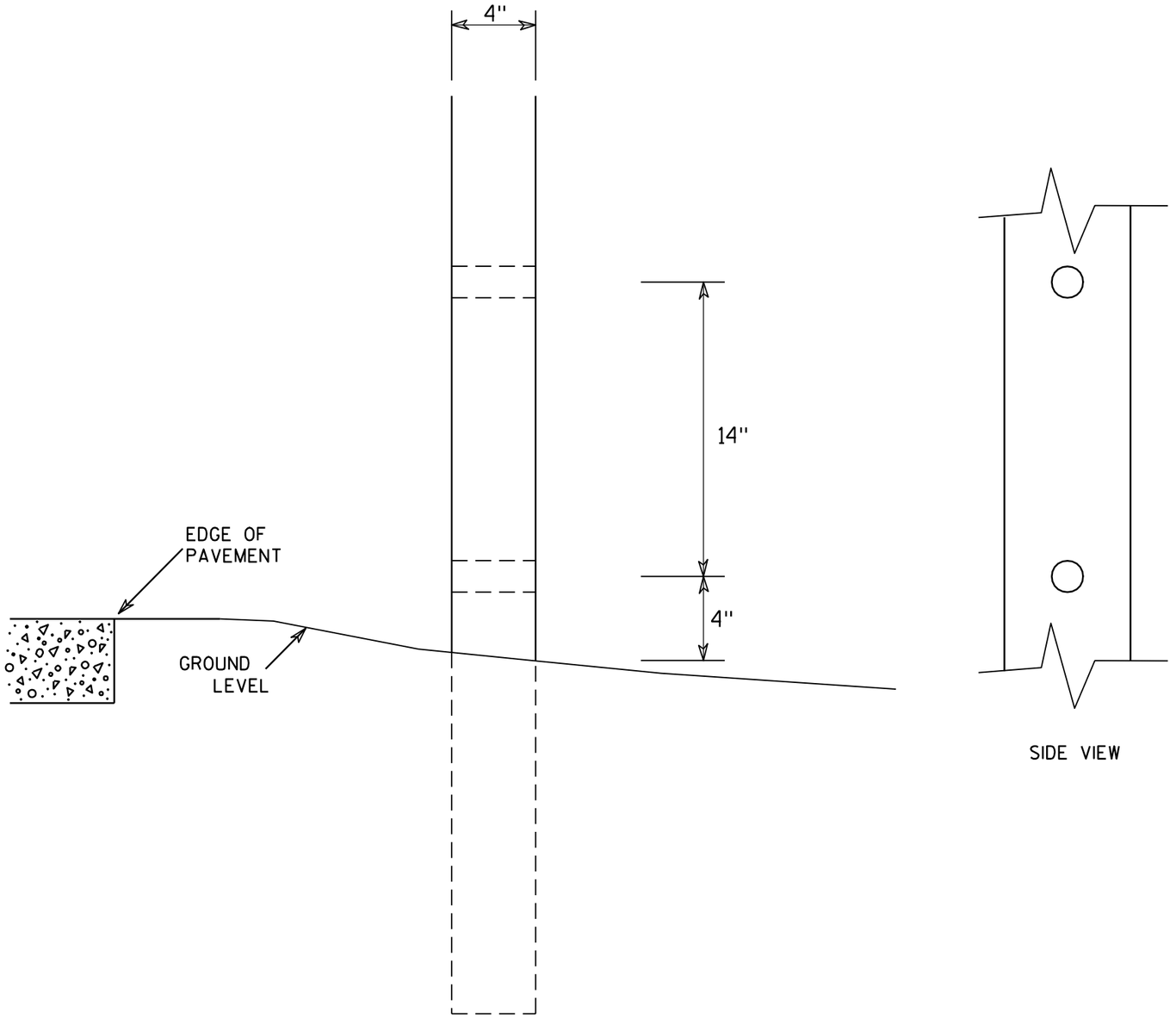
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

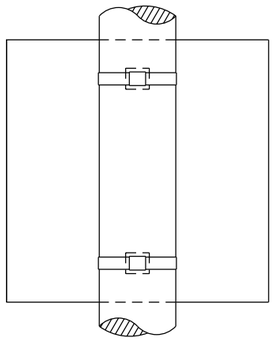
APPROVED Chester J Spang for State Traffic Engineer

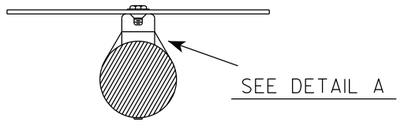
DATE 3/27/97 PLATE NO. A4-11.2

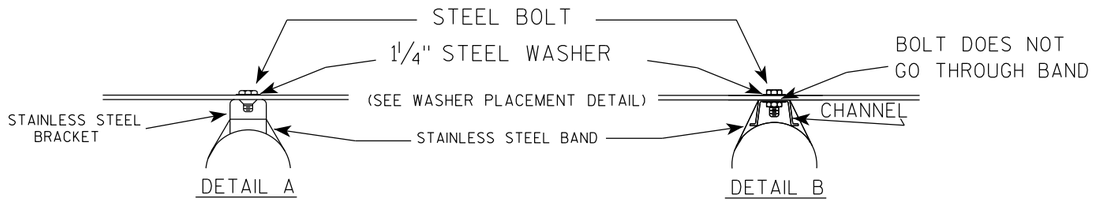
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 24	E

BANDING

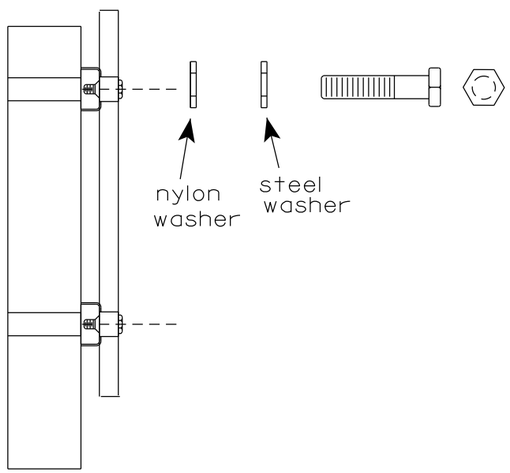
SINGLE SIGN







WASHER PLACEMENT

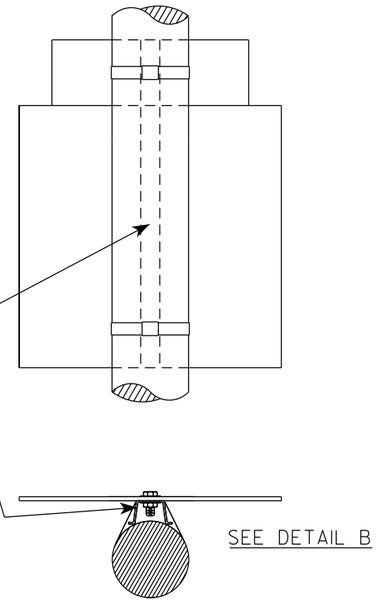


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

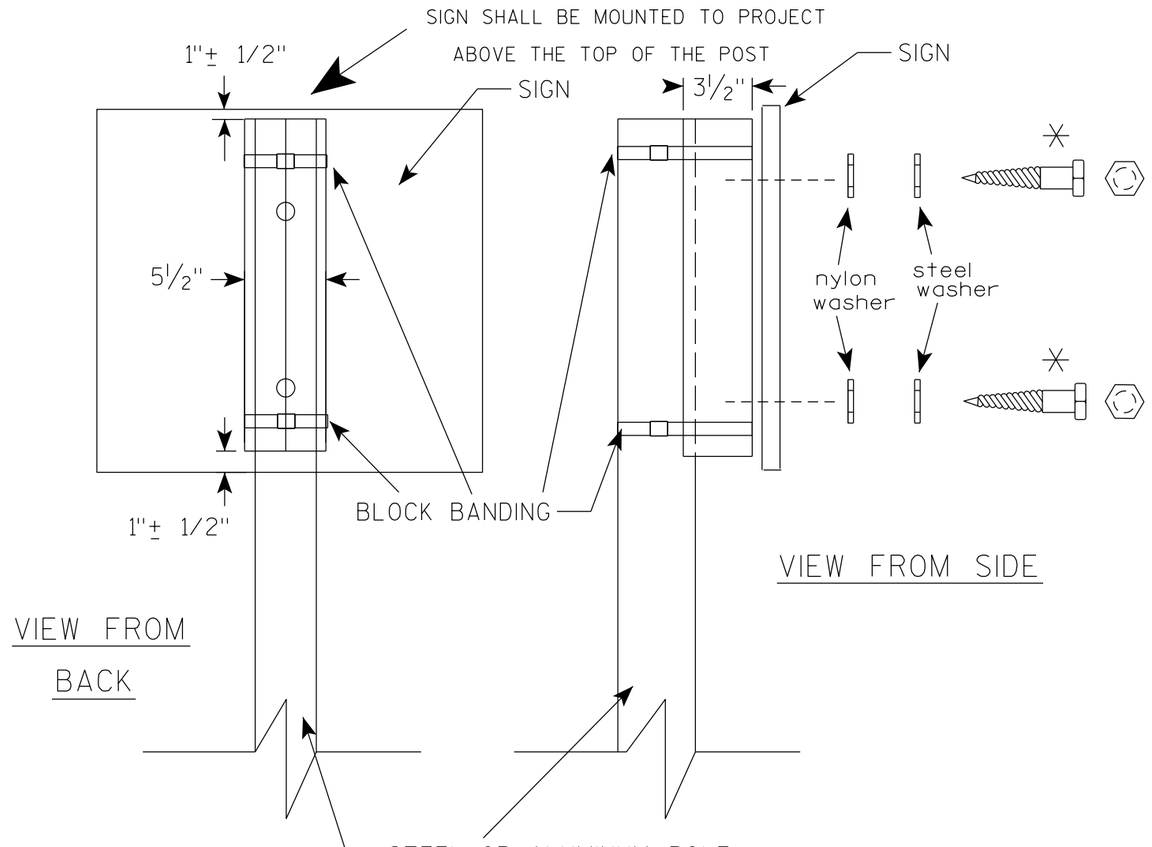
WISCONSIN DEPT OF TRANSPORTATION

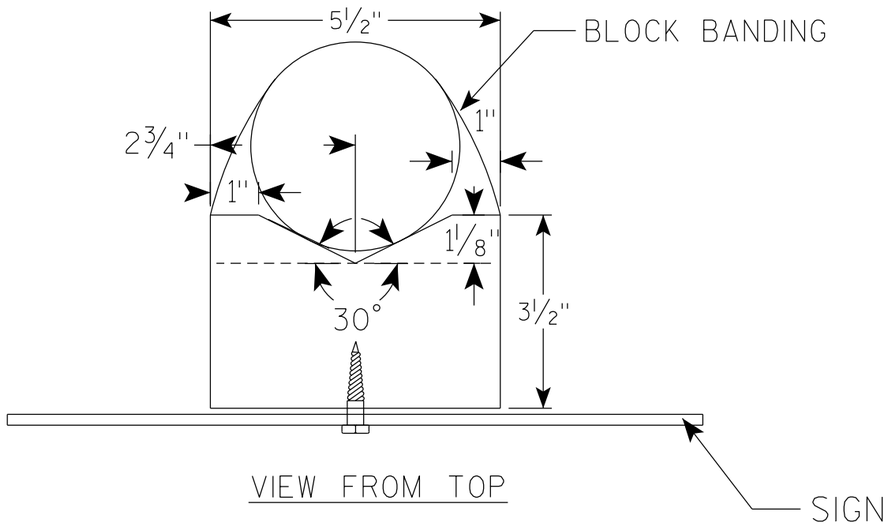
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 25	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

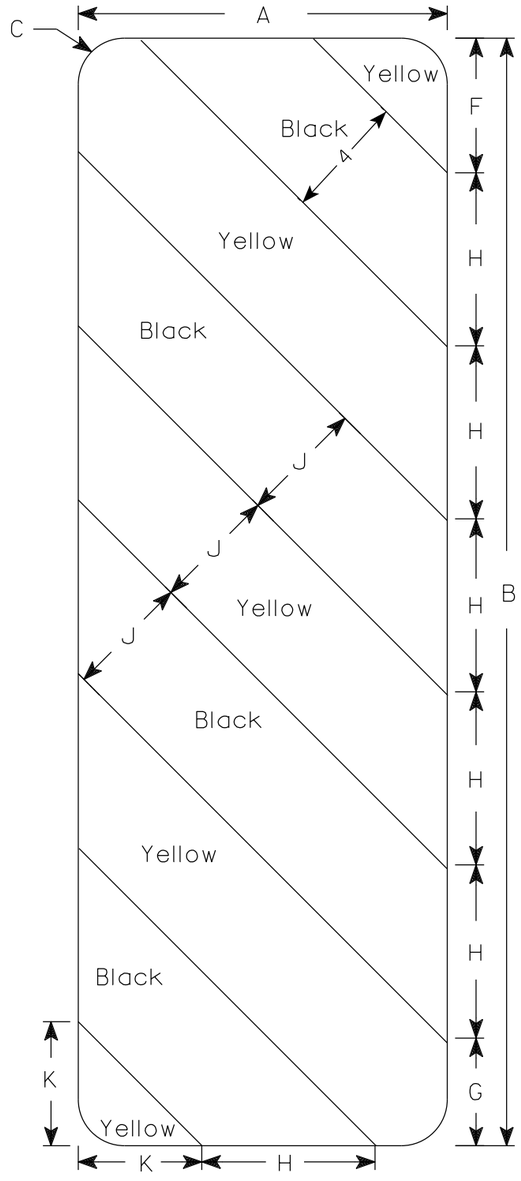
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

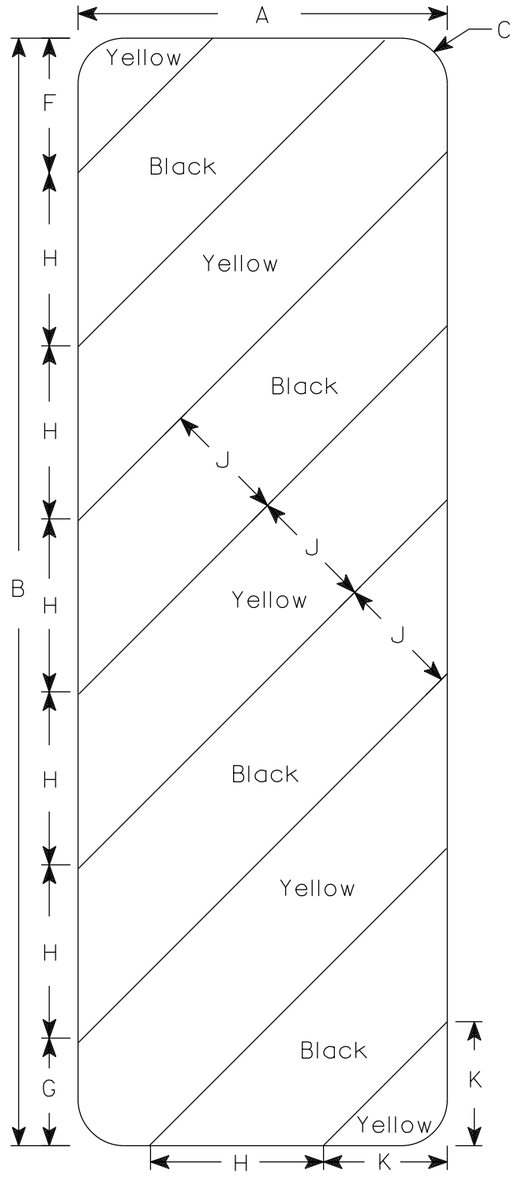
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 26 E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

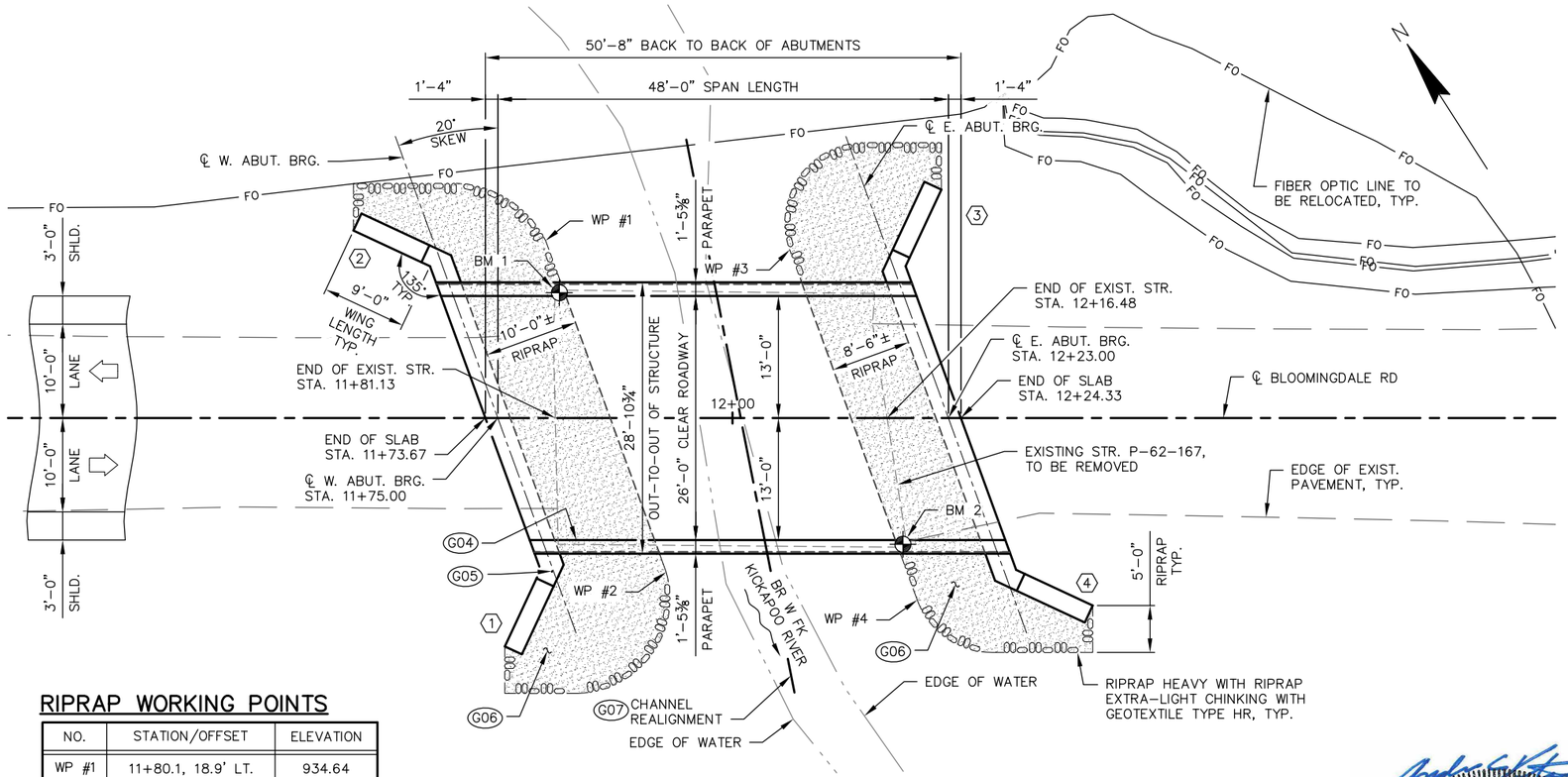
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 27 E

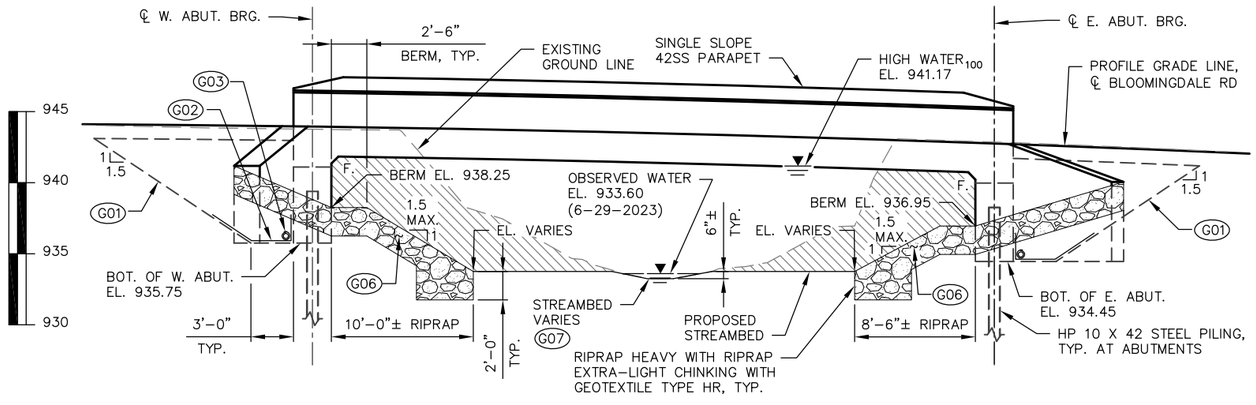


PLAN B-62-276

(SINGLE SPAN CONCRETE FLAT SLAB BRIDGE)

RIPRAP WORKING POINTS

NO.	STATION/OFFSET	ELEVATION
WP #1	11+80.1, 18.9' LT.	934.64
WP #2	11+92.9, 16.4' RT.	933.72
WP #3	12+06.1, 17.9' LT.	934.50
WP #4	12+19.7, 19.4' RT.	933.52



ELEVATION

(THRU BR W FK KICKAPOO RIVER, LOOKING NORTH)

BENCH MARKS

NO.	STATION/OFFSET	DESCRIPTION	ELEVATION
BM 1	11+81.57, 13.34' LT.	BOLT ON NORTHWEST HEADER	943.12
BM 2	12+18.16, 13.46' RT.	BOLT ON SOUTHEAST HEADER	943.30

HORIZONTAL DATUM AND ADJUSTMENT: NAD 83 (2011)
VERTICAL DATUM AND ADJUSTMENT: NAVD 88 (2012)
COORDINATE REFERENCE SYSTEM: WISCRS, VERNON CO.

NOTES

EXCAVATION AS INDICATED IN THE HATCH AREAS, TO BE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-62-276".

(G01) BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-62-276". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

(G02) "GEOTEXTILE TYPE DF SCHEDULE A" LIMITS. EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT FOR THE ENTIRE ABUTMENT BODY LENGTH.

(G03) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED IN "EAST ABUTMENT" SHEET.

(G04) NAME PLATE REQUIRED NEAR WING 1. FOR LOCATION SEE "PARAPET & SUPERSTRUCTURE" SHEET.

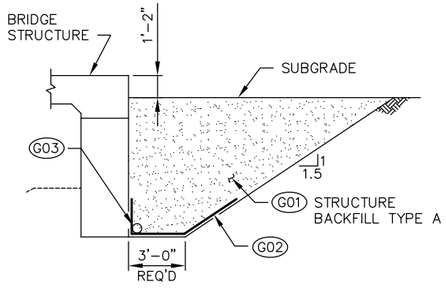
(G05) BENCHMARK CAP (WHEN SUPPLIED) NEAR WING 1. FOR LOCATION SEE "WEST ABUTMENT" SHEET.

(G06) RIPRAP HEAVY WITH VOIDS FILLED IN WITH RIPRAP EXTRA-LIGHT. ALL COSTS TO BE INCLUDED WITH BID ITEM "RIPRAP HEAVY WITH RIPRAP EXTRA-LIGHT CHINKING".

(G07) STREAMBED VARIES FROM EL. 932.89 DOWNSTREAM TO EL. 934.28 UPSTREAM. SEE ROADWAY PLANS CONSTRUCTION DETAILS FOR PROPOSED STREAM ALIGNMENT AND TYPICAL SECTION.

⬡ INDICATES WING NUMBER

LIST OF DRAWINGS



ABUTMENT BACKFILL DETAIL

(TYPICAL AT BOTH ABUTMENTS)

STATE PROJECT NUMBER

5377-00-70

DESIGN DATA

LIVE LOAD:

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — RF=1.12
OPERATING RATING FACTOR — RF=1.46
WISCONSIN STANDARD PERMIT VEHICLE RATING (WIS.-SPV): — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY, SLAB — $f'c$ = 4,000 P.S.I.
ALL OTHER — $f'c$ = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT — fy = 60,000 P.S.I.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE** AT W. ABUT. AND 170 TONS PER PILE** AT E. ABUT. AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35 FT PILE LENGTHS AT W. ABUT. AND 35 FT PILE LENGTHS AT E. ABUT.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA:

Q_{100} — 1,050 C.F.S.
Q_{100} (THRU BRIDGE) — 1,050 C.F.S.
Q_{100} (ROAD) — N/A
DRAINAGE AREA — 1.4 SQ. MI.
BRIDGE WATER AREA — 183 SQ. FT.
BRIDGE VELOCITY — 5.75 F.P.S.
HIGH WATER$_{100}$ EL. — 941.17 FT.
SCOUR CRITICAL CODE — 5
Q_2 — 151 C.F.S.
Q_2 ELEVATION — 937.20 FT.
Q_2 VELOCITY — 6.82 F.P.S.

TRAFFIC DATA:

BLOOMINGDALE ROAD
A.A.D.T. (2025) — 220
A.A.D.T. (2045) — 252
DESIGN SPEED — 30 M.P.H.

BRIDGE OFFICE CONTACT
AARON BONK, P.E.
(608) 261-0261

CONSULTANT CONTACT
ANDY KNUTSON, P.E., S.E.
(608) 588-7866

NO.	DATE	REVISION	BY

WESTBROOK Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WI 53588
PHONE (608) 588-7866
FAX (608) 588-7954

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 12/30/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-62-276

BLOOMINGDALE RD OVER BR W FK KICKAPOO RIVER

COUNTY	TOWN/~~CITY/VILLAGE~~
VERNON	CLINTON

DESIGN SPEC.: AASHTO LRFD DESIGN SPEC.

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDO	CDS	JDO	ACK

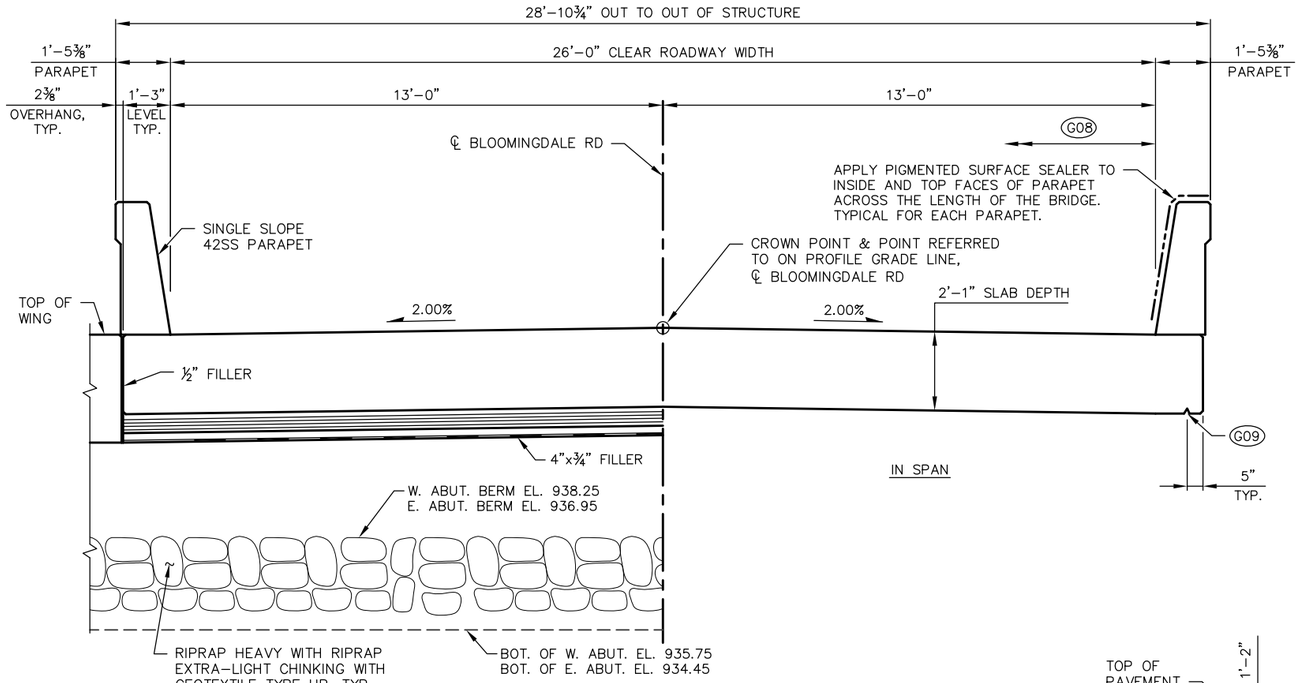
GENERAL PLAN

SHEET 1 OF 10

28

STATE PROJECT NUMBER

5377-00-70



AT ABUTMENT
(PILING NOT SHOWN FOR CLARITY)

CROSS SECTION THRU ROADWAY

(LOOKING EAST)

NOTES

(G08) COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP SURFACE OF SLAB BETWEEN THE PARAPETS.

(G09) ¾" V-GROOVE REQ'D. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-62-167	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-62-276	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	160	160	---	320
502.0100	CONCRETE MASONRY BRIDGES	CY	28.2	28.5	129.8	187
502.3200	PROTECTIVE SURFACE TREATMENT	SY	---	---	147	147
502.3210	PIGMENTED SURFACE SEALER	SY	---	---	50	50
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2260	2390	---	4650
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1430	1440	27160	30030
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7	7	---	14
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	245	245	---	490
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80	80	---	160
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	31	31	---	62
645.0120	GEOTEXTILE TYPE HR	SY	105	99	---	204
SPV.0035.01	RIPRAP HEAVY WITH RIPRAP EXTRA-LIGHT CHINKING	CY	65	60	---	125
(NON-BID ITEM)	FILLER	SIZE				½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY WITH RIPRAP EXTRA-LIGHT CHINKING AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE "GENERAL PLAN" SHEET AND THE ABUTMENT SHEETS.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WING FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCLUDED WITH "EXCAVATION FOR STRUCTURES BRIDGES B-62-276".

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-62-276" SHALL BE THE EXISTING GROUND LINE.

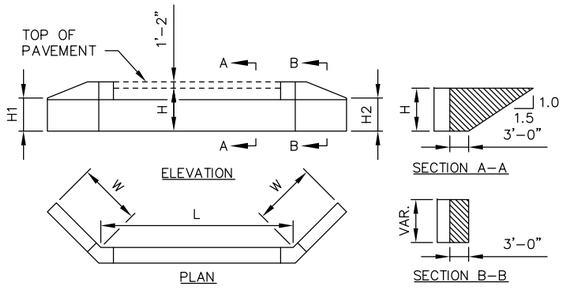
AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

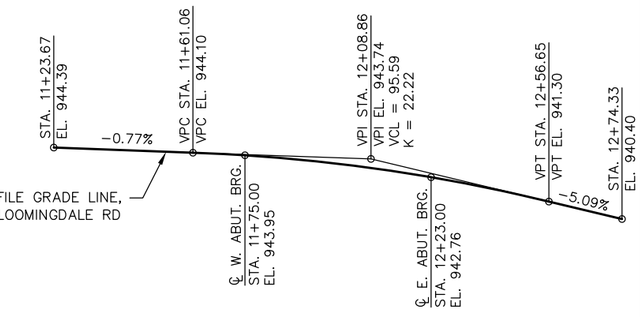
DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

THE EXISTING STRUCTURE (P-62-167) IS A SINGLE SPAN STEEL GIRDER BRIDGE WITH A CONCRETE DECK AND WITH AN OVERALL LENGTH OF 35.4-FT AND A DECK WIDTH OF 27.5-FT AND IS TO BE REMOVED PER BID ITEM "REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-62-167".

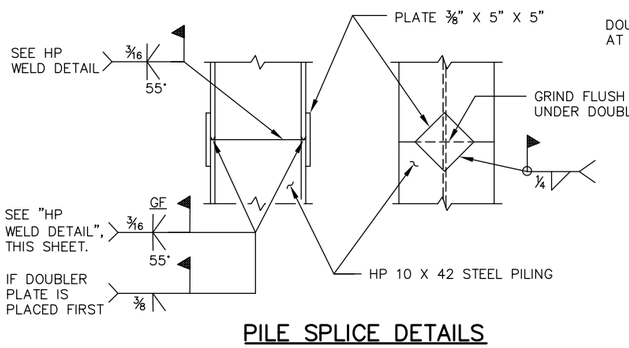


ABUTMENT BACKFILL DIAGRAM

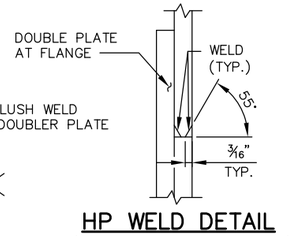
L = ABUTMENT BODY LENGTH AT BACKFACE (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
H1 = WING 1 HEIGHT AT TIP (FT)
H2 = WING 2 HEIGHT AT TIP (FT)
W = WING LENGTH (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3')(0.5)(H1+H2+H+H)(W)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)



PROFILE GRADE LINE, ℄ BLOOMINGDALE RD



PILE SPLICE DETAILS



HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-276

DRAWN BY JDO | PLANS CK'D ACK

CROSS SECTION, GENERAL NOTES & QUANTITIES

SHEET 2 OF 10

29

8

8

I.D. 5377-00-70

PLOT DATE: Oct 31, 2024

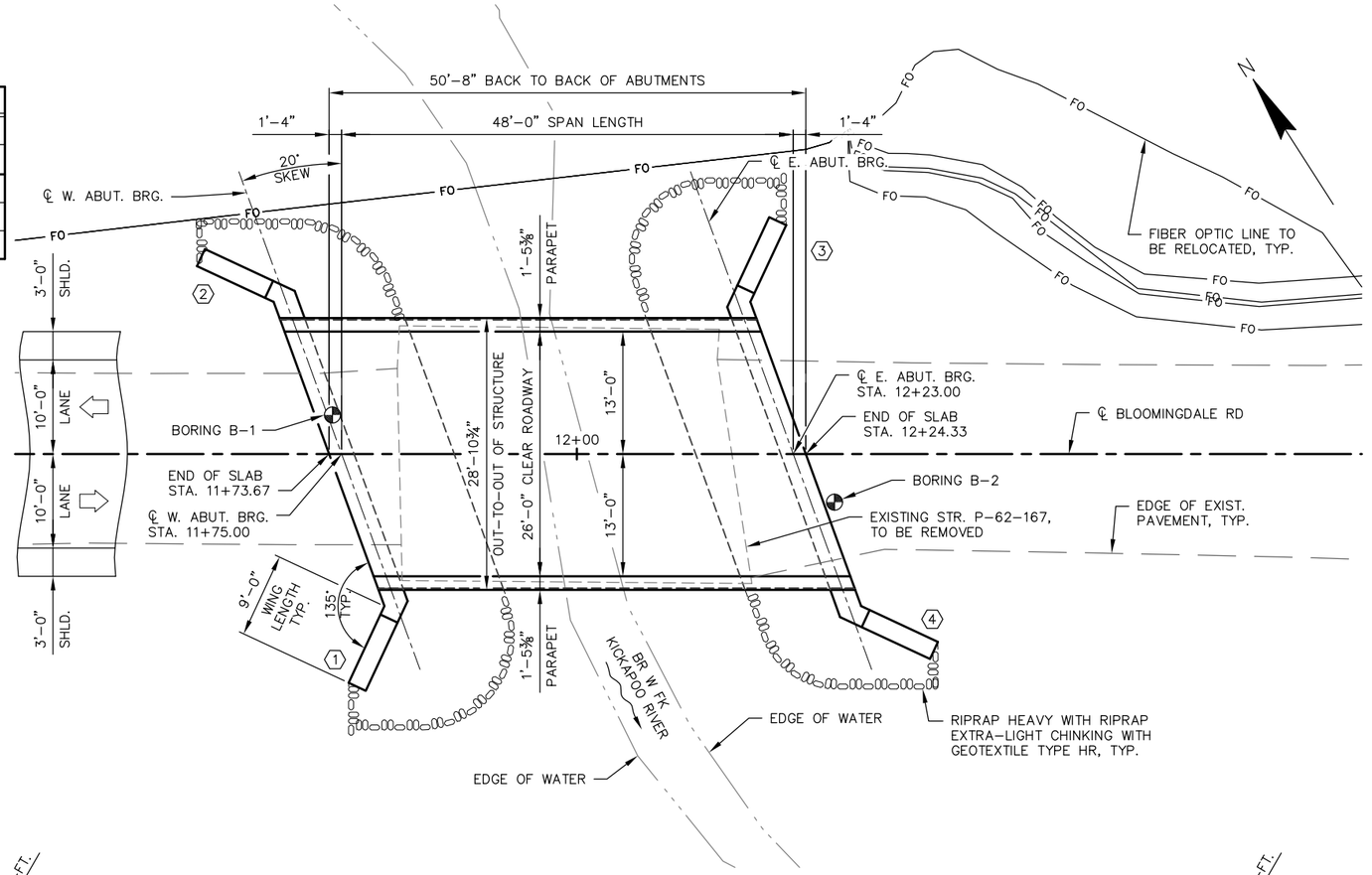
FILE: B620276_02_qty.dwg
PLOT SCALE:

B-62-276 BORINGS

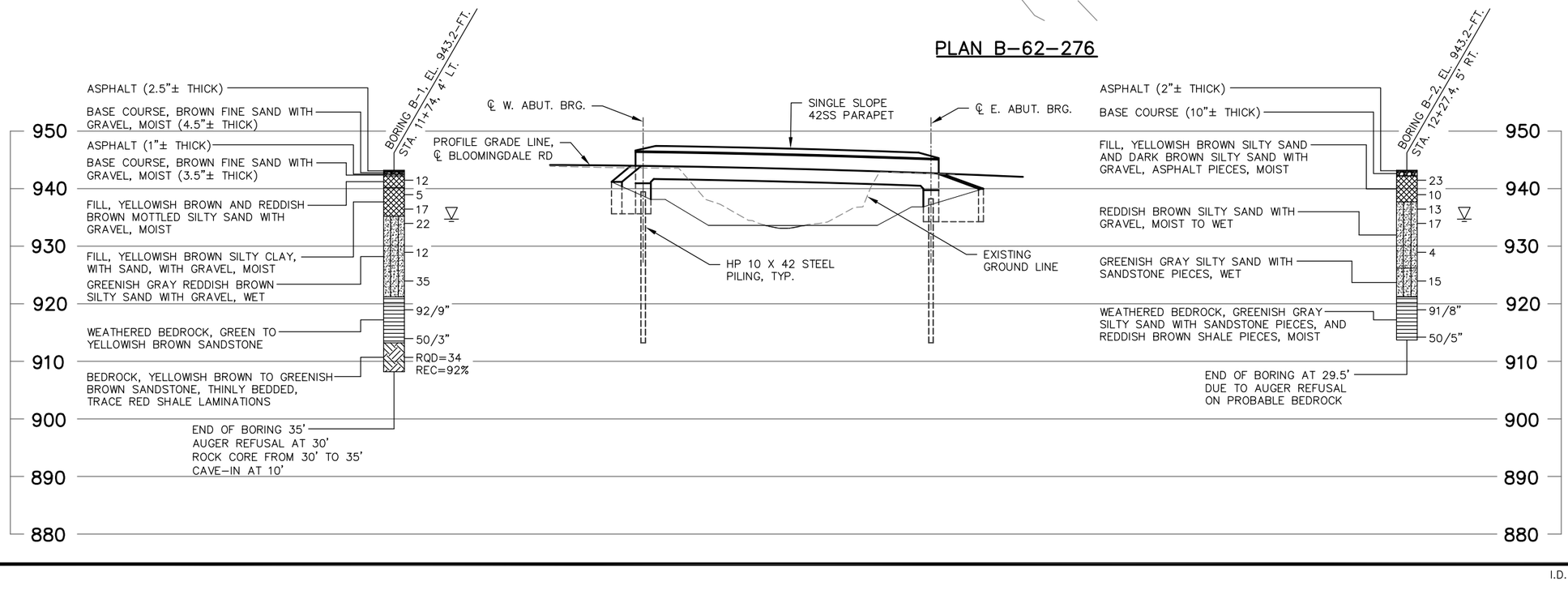
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BORING B-1	10/19/2023	181307.3	729864.3
BORING B-2	10/19/2023	181270.7	729904.3
BORINGS COMPLETED BY: PSI, INC.			
SUBSURFACE INVESTIGATION REPORT: PSI, INC.			
ALL COORDINATES REFERENCED TO WISCRS, VERNON COUNTY			

NOTE

⬡ INDICATES WING NUMBER



PLAN B-62-276



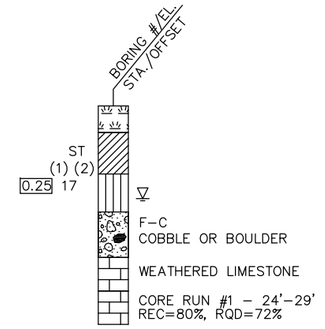
STATE PROJECT NUMBER

5377-00-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE SPECIFIED, THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-276

DRAWN BY JDO | PLANS CK'D ACK

SUBSURFACE EXPLORATION

SHEET 3 OF 10

30

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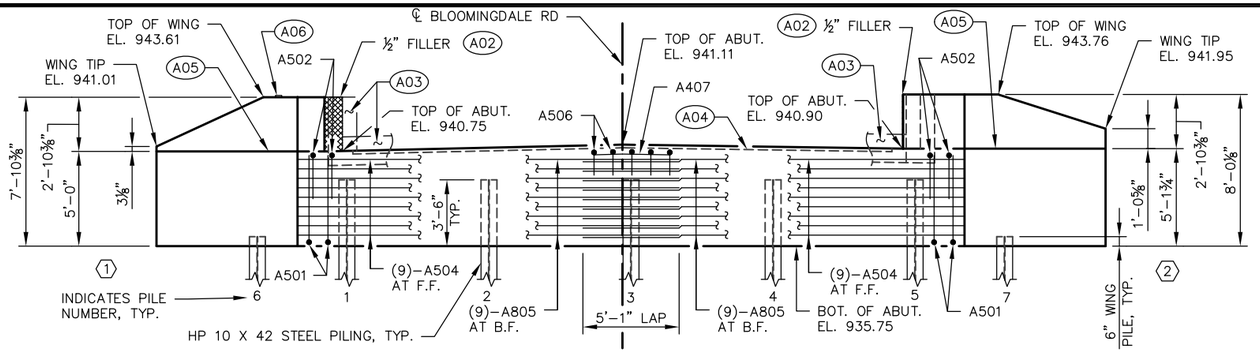
I.D. 5377-00-70

PLOT DATE: Oct 31, 2024

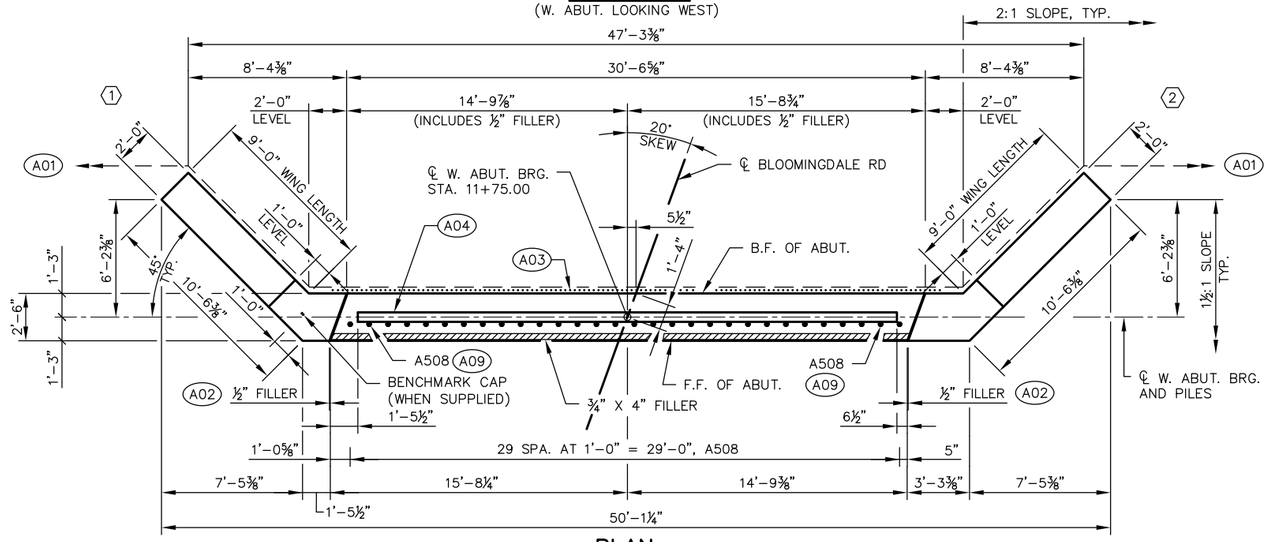
FILE: B620276_03_bor.dwg
PLOT SCALE:

STATE PROJECT NUMBER

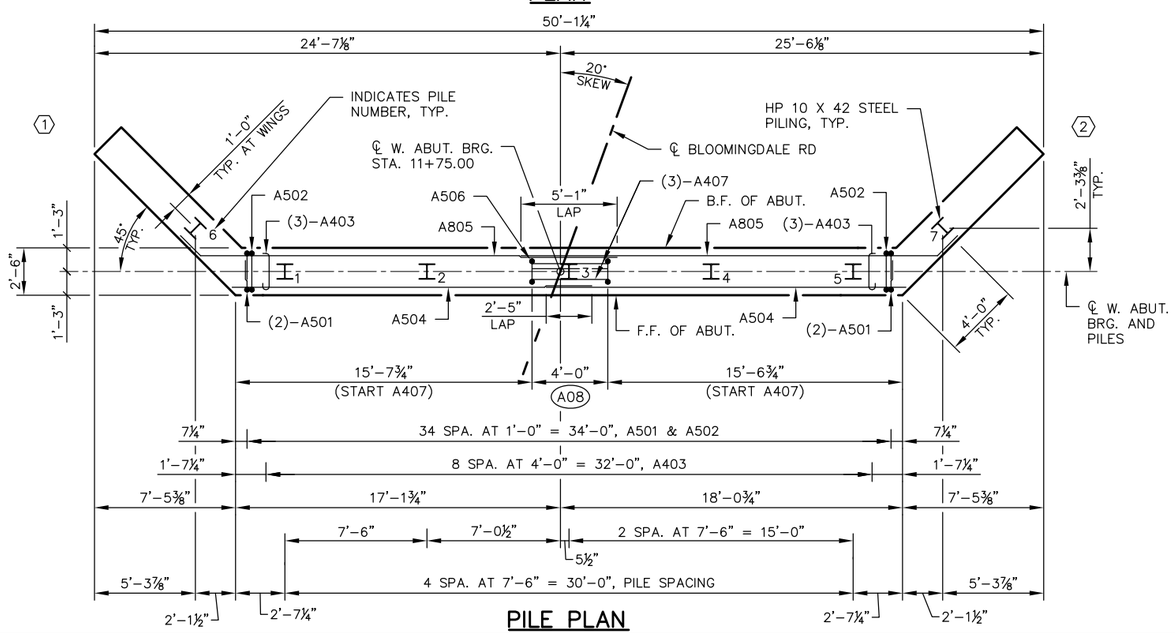
5377-00-70



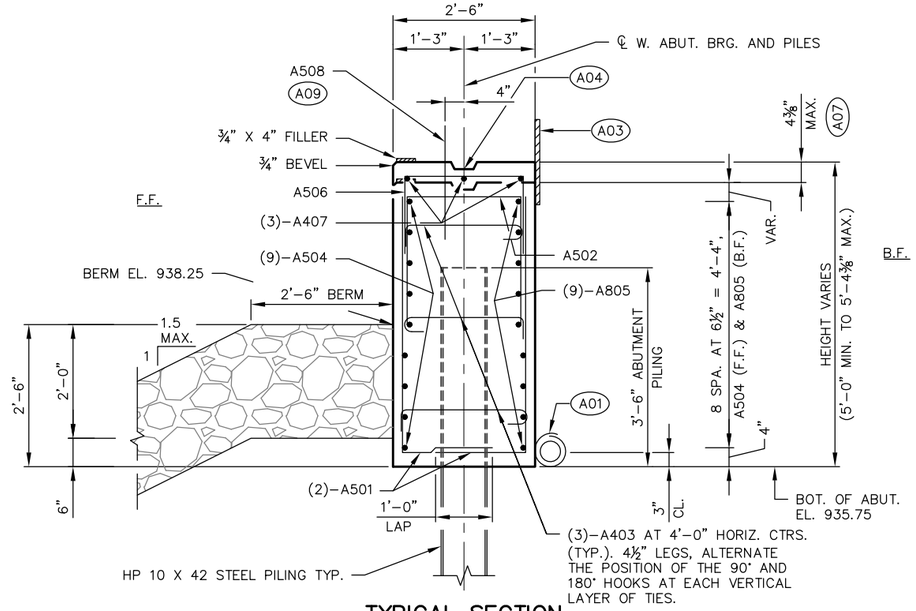
ELEVATION
(W. ABUT. LOOKING WEST)



PLAN



PILE PLAN



TYPICAL SECTION THRU WEST ABUTMENT
(LOOKING SOUTH)

NOTES

DO NOT PLACE FILL ABOVE 3'-0" FROM THE BOTTOM OF THE ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

WEST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35 FT PILE LENGTHS AT THE WEST ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR PILE SPLICE DETAILS.

(A01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "EAST ABUTMENT" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.), SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

(A04) KEYED CONST. JT. FORMED BY BEVELED 2 X 6

(A05) OPTIONAL KEYED CONST. JT. FORMED BY BEVELED 2 X 6, TYP.

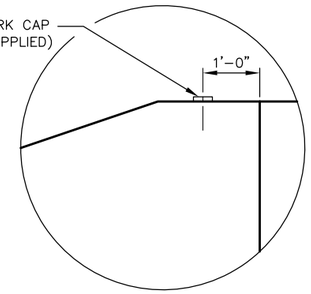
(A06) BENCHMARK CAP (WHEN SUPPLIED) AT WING 1 ONLY. SEE "BENCHMARK CAP DETAIL", THIS SHEET.

(A07) A506 & A407 BARS REQUIRED WHERE DIMENSION EXCEEDS 4"

(A08) A506 BARS, 4 SPA. AT 1'-0"

(A09) A508 BARS MAY BE PLACED AFTER CONCRETE HAS BEEN POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO ABUTMENT BODY.

⬡ INDICATES WING NUMBER



BENCHMARK CAP DETAIL

F.F. – FRONT FACE
B.F. – BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-276

DRAWN BY JDO | PLANS CK'D ACK

WEST ABUTMENT

SHEET 4 OF 10

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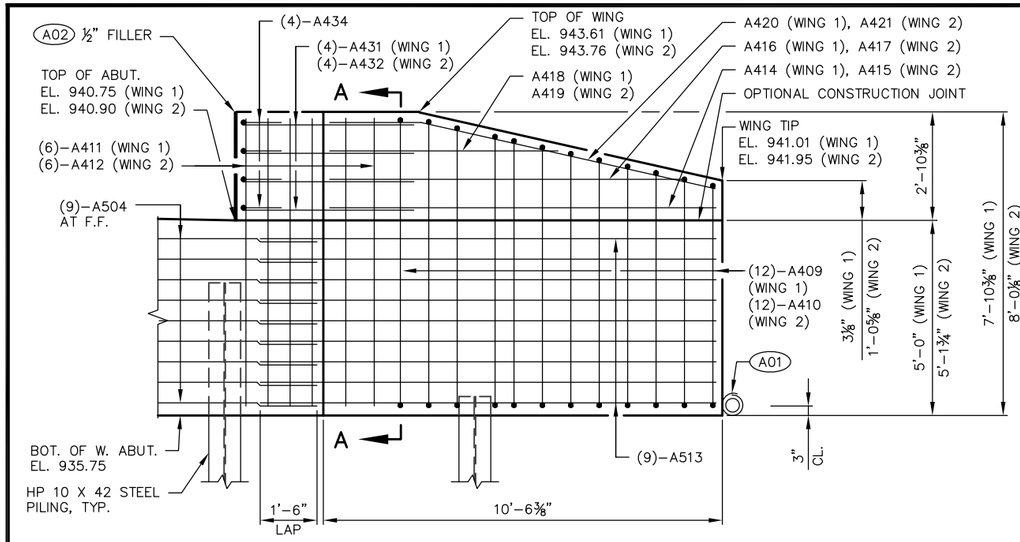
I.D. 5377-00-70

PLOT DATE: Nov 01, 2024

FILE: B620276_04-05_Wabut.dwg
PLOT SCALE:

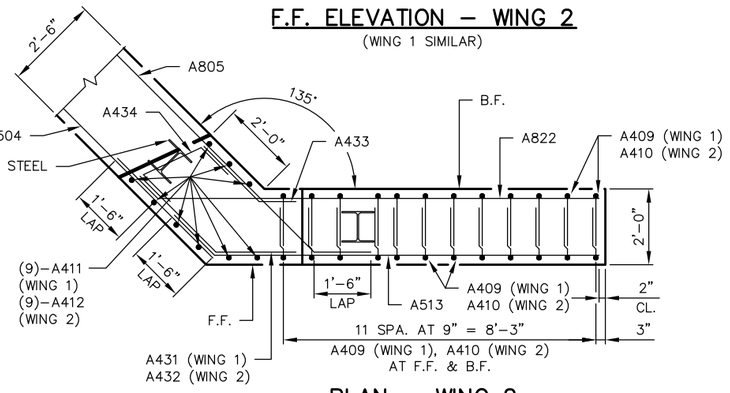
STATE PROJECT NUMBER

5377-00-70



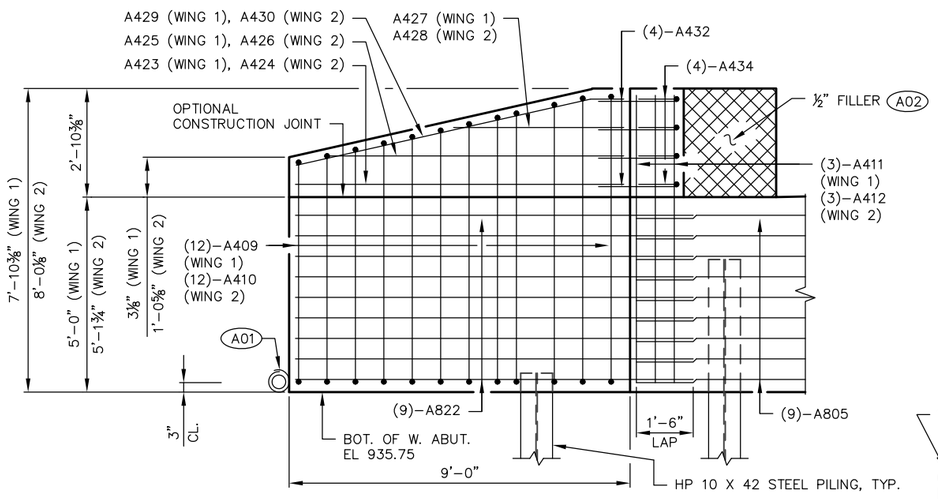
F.F. ELEVATION – WING 2

(WING 1 SIMILAR)



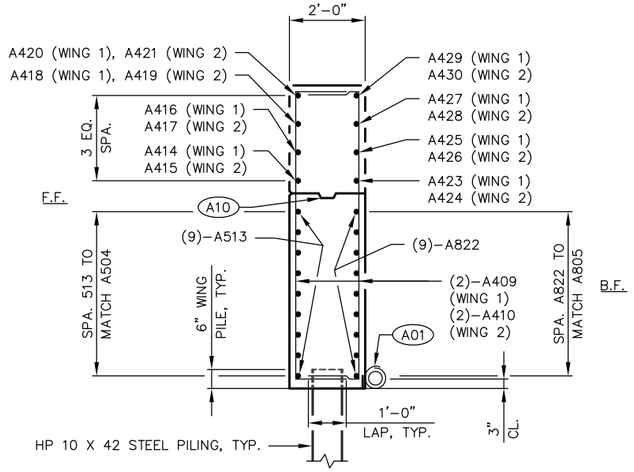
PLAN – WING 2

(WING 1 SIMILAR)



B.F. ELEVATION – WING 2

(WING 1 SIMILAR)



SECTION A–A

NOTES

DO NOT PLACE FILL ABOVE 3'–0" FROM THE BOTTOM OF THE ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

WEST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35 FT PILE LENGTHS AT THE WEST ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR PILE SPLICE DETAILS.

(A01) PIPE UNDERDRAIN WRAPPED (6–INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "EAST ABUTMENT" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6–INCH".

(A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON–STAINING GRAY NON–BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.) ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

(A10) OPTIONAL CONSTRUCTION JOINT, SEAL B.F. WITH R.M.W. IF CONST. JOINT IS USED. COST INCLUDED WITH THE BID ITEM "CONCRETE MASONRY BRIDGES". PLACE ¾" "V" GROOVE ON F.F. OF WALL IF CONST. JT. IS USED.

BILL OF BARS
WEST ABUTMENT

COATED = 1,430 LBS.
UNCOATED = 2,260 LBS.

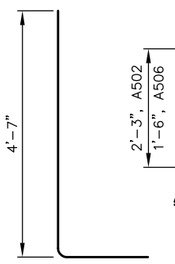
MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
A501		70	6'–1"	X		BODY – STIRRUP – F.F. & B.F.	VERT.
A502		35	6'–5"	X		BODY – STIRRUP – TOP	VERT.
A403		27	3'–1"	X		BODY – TIES	HORIZ.
A504		18	18'–10"			BODY – F.F.	HORIZ.
A805		18	23'–8"	X		BODY – B.F.	HORIZ.
A506		5	4'–11"	X		BODY – STIRRUP – TOP	VERT.
A407		3	4'–0"			BODY – TOP	HORIZ.
A508	30		2'–0"			BODY – TOP DOWELS	VERT.
A409	24		8'–7"	X	⚠	WING 1 – STIRRUP – F.F. & B.F.	VERT.
A410	24		9'–2"	X	⚠	WING 2 – STIRRUP – F.F. & B.F.	VERT.
A411	9		7'–4"			WING 1 – F.F. & B.F.	HORIZ.
A412	9		7'–7"			WING 2 – F.F. & B.F.	HORIZ.
A513	18		11'–9"	X		WINGS 1 & 2 – F.F.	HORIZ.
A414	1		9'–6"			WING 1 – F.F.	HORIZ.
A415	1		10'–2"			WING 2 – F.F.	HORIZ.
A416	1		7'–2"			WING 1 – F.F.	HORIZ.
A417	1		9'–4"			WING 2 – F.F.	HORIZ.
A418	1		4'–11"			WING 1 – F.F.	HORIZ.
A419	1		6'–0"			WING 2 – F.F.	HORIZ.
A420	1		10'–5"	X		WING 1 – F.F. – TOP	HORIZ.
A421	1		10'–3"	X		WING 2 – F.F. – TOP	HORIZ.
A822	18		13'–3"	X		WINGS 1 & 2 – B.F.	HORIZ.
A423	1		8'–0"			WING 1 – B.F.	HORIZ.
A424	1		8'–8"			WING 2 – B.F.	HORIZ.
A425	1		5'–8"			WING 1 – B.F.	HORIZ.
A426	1		7'–9"			WING 2 – B.F.	HORIZ.
A427	1		3'–5"			WING 1 – B.F.	HORIZ.
A428	1		4'–5"			WING 2 – B.F.	HORIZ.
A429	1		8'–11"	X		WING 1 – B.F. – TOP	HORIZ.
A430	1		8'–9"	X		WING 2 – B.F. – TOP	HORIZ.
A431	4		3'–5"	X		WINGS 1 – F.F. CORNER	HORIZ.
A432	4		5'–1"	X		WINGS 2 – F.F. CORNER	HORIZ.
A433	8		2'–11"	X		WINGS 1 & 2 – B.F. CORNER	HORIZ.
A434	8		4'–1"	X		WINGS 1 & 2 – TOP CORNER	HORIZ.

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

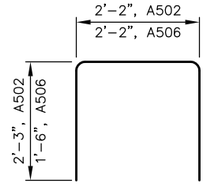
ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

F.F. – FRONT FACE
B.F. – BACK FACE

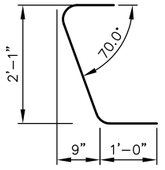
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE "BAR SERIES TABLE" FOR ACTUAL LENGTHS.



A501



A502 & A506



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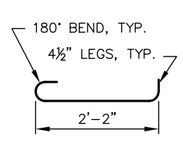
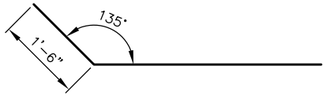
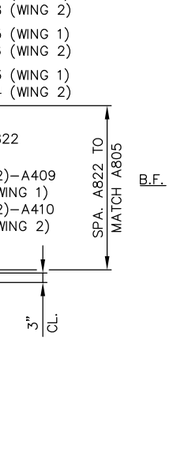


A403



A805, A513 & A822



A409 & A410

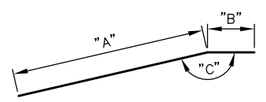
BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
A409	2 SERIES OF 12	7'–4" TO 9'–10"
A410	2 SERIES OF 12	8'–3" TO 10'–0"

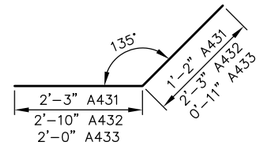
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR BEND DIMENSIONS

MARK	"A"	"B"	"C"
A420	8'–0"	2'–6"	162°
A421	7'–10"	2'–6"	167°
A429	8'–0"	0'–11"	162°
A430	7'–10"	0'–11"	167°



A420, A421, A429, & A430



A431, A432, & A433

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–62–276

DRAWN BY JDO | PLANS CK'D ACK

WEST ABUTMENT DETAILS

SHEET 5 OF 10

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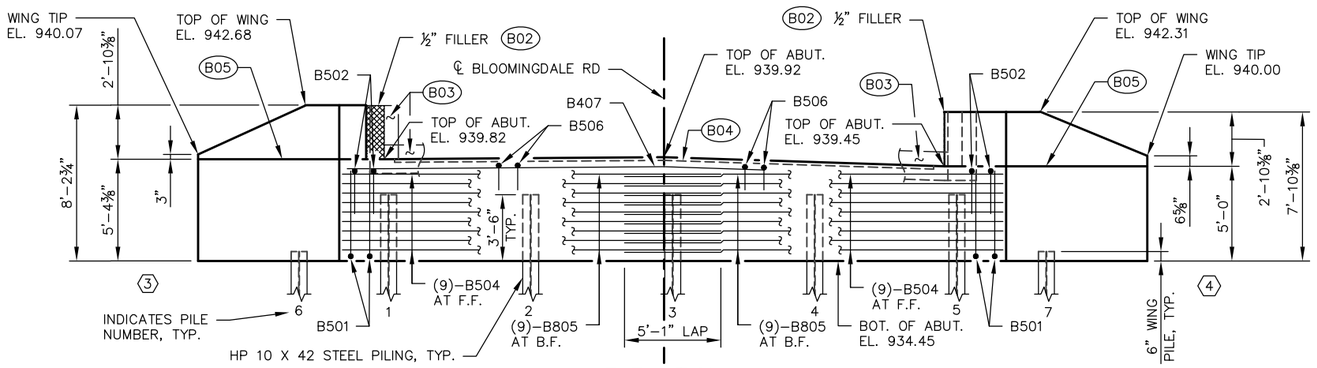
I.D. 5377–00–70

PLOT DATE: Oct 30, 2024

FILE: B620276_04–05_Wabut.dwg
PLOT SCALE:

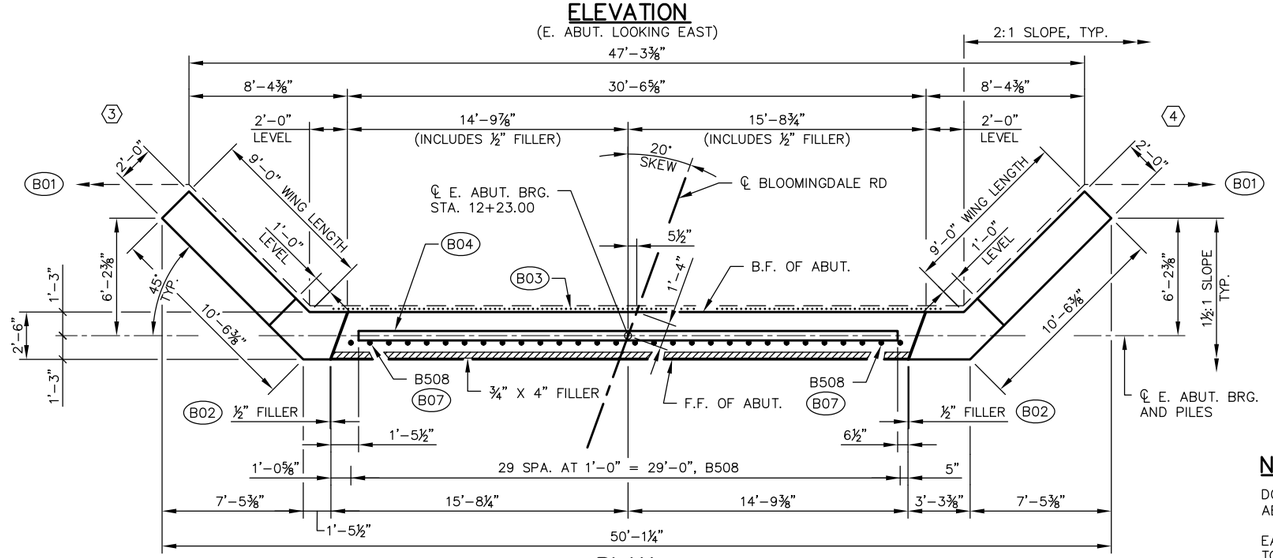
STATE PROJECT NUMBER

5377-00-70

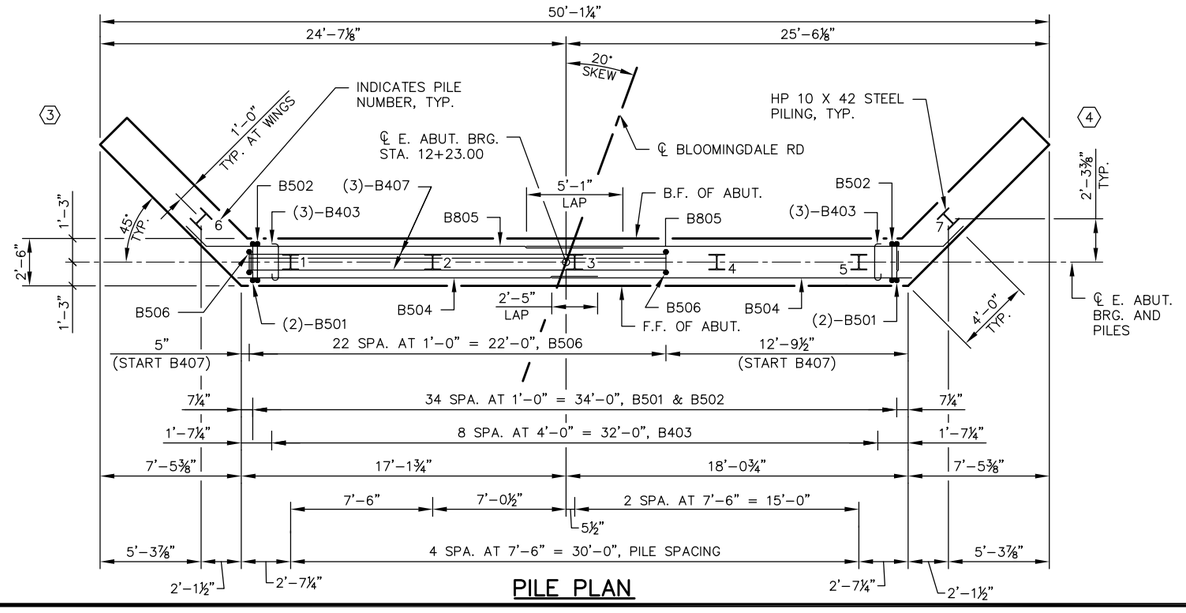


ELEVATION

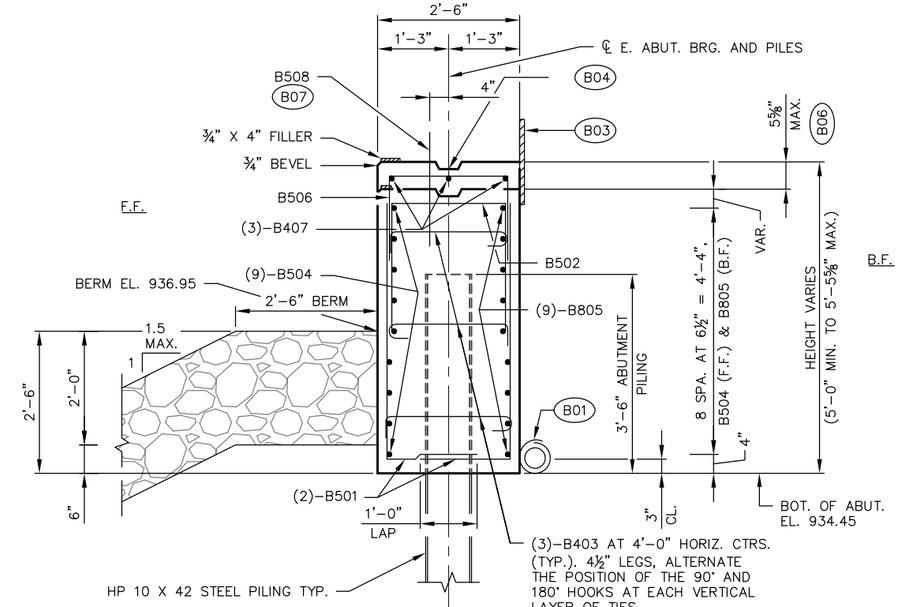
(E. ABUT. LOOKING EAST)



PLAN



PILE PLAN



TYPICAL SECTION THRU EAST ABUTMENT

(LOOKING NORTH)

NOTES

DO NOT PLACE FILL ABOVE 3'-0" FROM THE BOTTOM OF THE ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

EAST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35 FT PILE LENGTHS AT THE EAST ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR PILE SPLICE DETAILS.

(B01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(B02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.), SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

(B04) KEYED CONST. JT. FORMED BY BEVELED 2 X 6

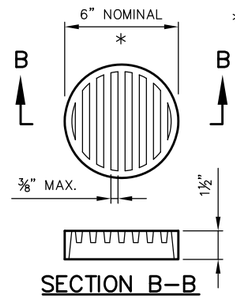
(B05) OPTIONAL KEYED CONST. JT. FORMED BY BEVELED 2 X 6, TYP.

(B06) B506 & B407 BARS REQUIRED WHERE DIMENSION EXCEEDS 4"

(B07) B508 BARS MAY BE PLACED AFTER CONCRETE HAS BEEN POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO ABUTMENT BODY.

⬡ INDICATES WING NUMBER

F.F. - FRONT FACE
B.F. - BACK FACE



SECTION B-B

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

THE RODENT SHIELD. PIPE COUPLING AND SCREWS SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

RODENT SHIELD DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-276

DRAWN BY JDO | PLANS CK'D ACK

EAST ABUTMENT

SHEET 6 OF 10

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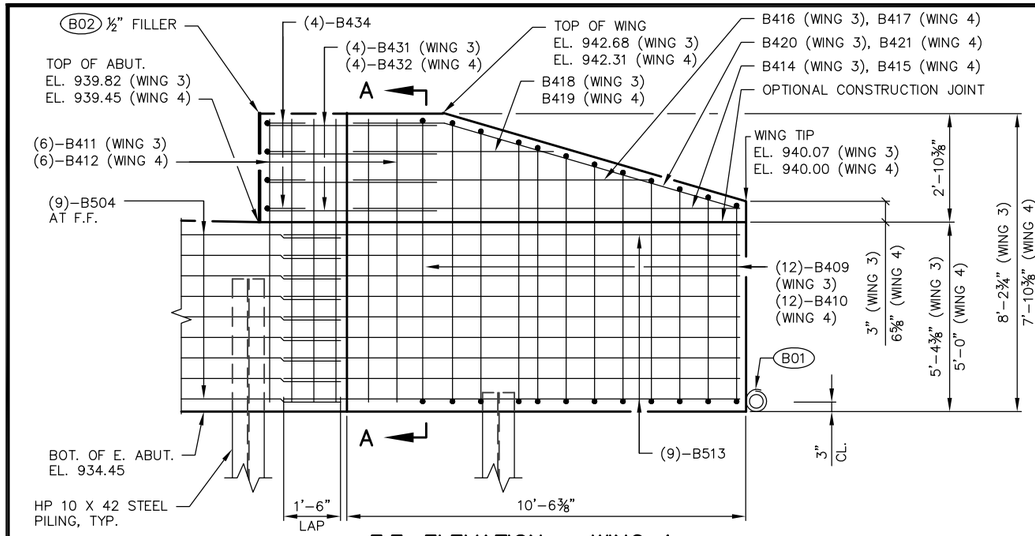
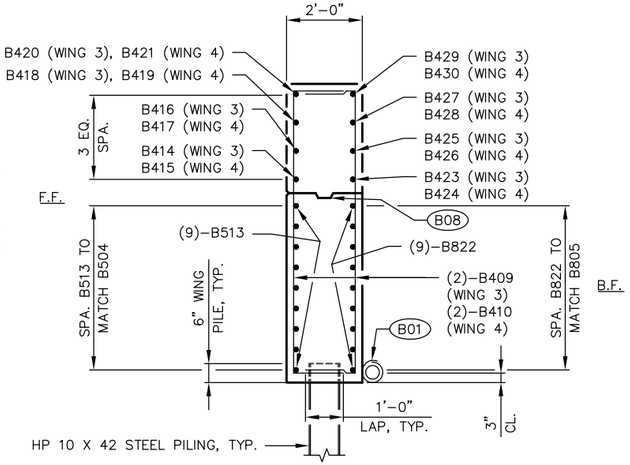
I.D. 5377-00-70

PLOT DATE: Nov 01, 2024

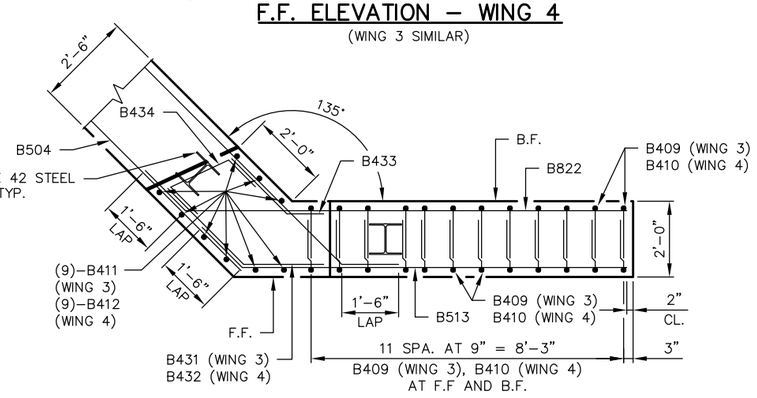
FILE: B620276_06-07_Eabut.dwg
PLOT SCALE:



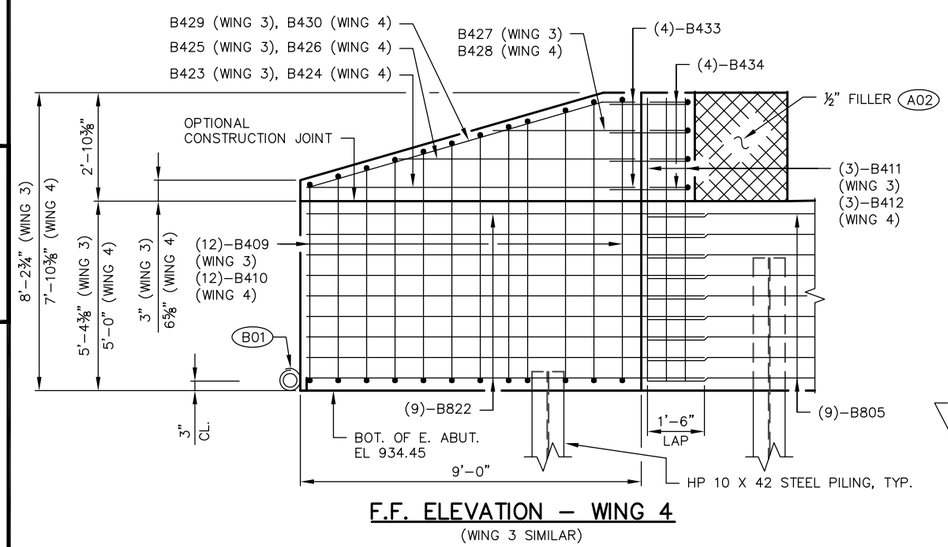
F.F. ELEVATION – WING 4
(WING 3 SIMILAR)



SECTION A–A



PLAN – WING 4
(WING 3 SIMILAR)



F.F. ELEVATION – WING 4
(WING 3 SIMILAR)

NOTES

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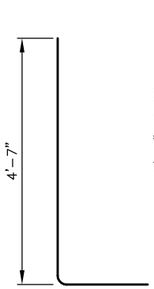
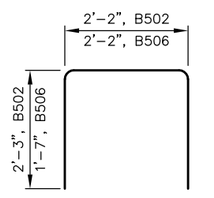
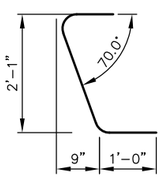
(B08) OPTIONAL CONSTRUCTION JOINT, SEAL B.F. WITH R.M.W. IF CONST. JOINT IS USED. COST INCLUDED WITH THE BID ITEM "CONCRETE MASONRY BRIDGES". PLACE ¾" "V" GROOVE ON F.F. OF WALL IF CONST. JT. IS USED.



B501



B502 & B506



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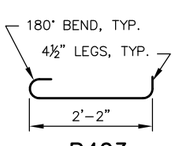

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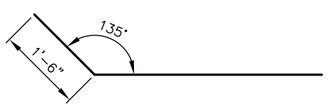
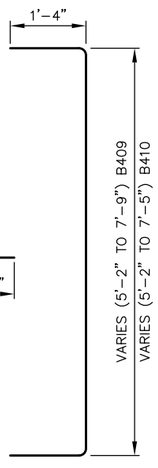


B805, B513 & B822



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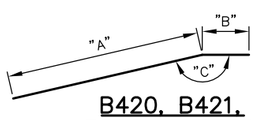
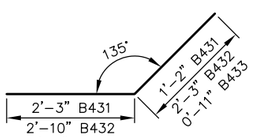


B420, B421, B429, & B430



B431, B432, & B433

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
B409	2 SERIES OF 12	7'–8" TO 10'–3"
B410	2 SERIES OF 12	7'–8" TO 9'–11"

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR BEND DIMENSIONS

MARK	"A"	"B"	"C"
B420	8'–2"	2'–4"	162°
B421	8'–0"	2'–5"	164°
B429	8'–2"	0'–11"	162°
B430	8'–0"	0'–11"	164°

STATE PROJECT NUMBER

5377–00–70

BILL OF BARS
EAST ABUTMENT

COATED = 1,440 LBS.
UNCOATED = 2,390 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
B501		70	6'–1"	X		BODY – STIRRUP – F.F. & B.F.	VERT.
B502		35	6'–5"	X		BODY – STIRRUP – TOP	VERT.
B403		27	3'–1"	X		BODY – TIES	HORIZ.
B504		18	18'–10"			BODY – F.F.	HORIZ.
B805		18	23'–8"	X		BODY – B.F.	HORIZ.
B506		23	5'–0"	X		BODY – STIRRUP – TOP	VERT.
B407		3	22'–0"			BODY – TOP	HORIZ.
B508	30		2'–0"			BODY – TOP DOWELS	VERT.
B409	24		9'–1"	X	⚠	WING 3 – STIRRUP – F.F. & B.F.	VERT.
B410	24		8'–10"	X	⚠	WING 4 – STIRRUP – F.F. & B.F.	VERT.
B411	9		7'–9"			WING 3 – F.F. & B.F.	HORIZ.
B412	9		7'–5"			WING 4 – F.F. & B.F.	HORIZ.
B513	18		11'–9"	X		WINGS 3 & 4 – F.F.	HORIZ.
B414	1		9'–6"			WING 3 – F.F.	HORIZ.
B415	1		10'–2"			WING 4 – F.F.	HORIZ.
B416	1		7'–2"			WING 3 – F.F.	HORIZ.
B417	1		7'–9"			WING 4 – F.F.	HORIZ.
B418	1		4'–10"			WING 3 – F.F.	HORIZ.
B419	1		5'–2"			WING 4 – F.F.	HORIZ.
B420	1		10'–6"	X		WING 3 – F.F. – TOP	HORIZ.
B421	1		10'–5"	X		WING 4 – F.F. – TOP	HORIZ.
B822	18		13'–3"	X		WINGS 3 & 4 – B.F.	HORIZ.
B423	1		8'–0"			WING 3 – B.F.	HORIZ.
B424	1		8'–8"			WING 4 – B.F.	HORIZ.
B425	1		5'–9"			WING 3 – B.F.	HORIZ.
B426	1		6'–3"			WING 4 – B.F.	HORIZ.
B427	1		3'–5"			WING 3 – B.F.	HORIZ.
B428	1		3'–8"			WING 4 – B.F.	HORIZ.
B429	1		9'–1"	X		WING 3 – B.F. – TOP	HORIZ.
B430	1		8'–11"	X		WING 4 – B.F. – TOP	HORIZ.
B431	4		3'–5"	X		WING 3 – F.F. CORNER	HORIZ.
B432	4		5'–1"	X		WING 4 – F.F. CORNER	HORIZ.
B433	8		2'–11"	X		WINGS 3 & 4 – B.F. CORNER	HORIZ.
B434	8		4'–1"	X		WINGS 3 & 4 – TOP CORNER	HORIZ.

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

F.F. – FRONT FACE
B.F. – BACK FACE

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE "BAR SERIES TABLE" FOR ACTUAL LENGTHS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–62–276

DRAWN BY JDO | PLANS CK'D ACK

EAST ABUTMENT DETAILS

SHEET 7 OF 10

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FILE: B620276_06–07_Eabut.dwg
PLOT SCALE:

I.D. 5377–00–70

PLOT DATE: Oct 30, 2024

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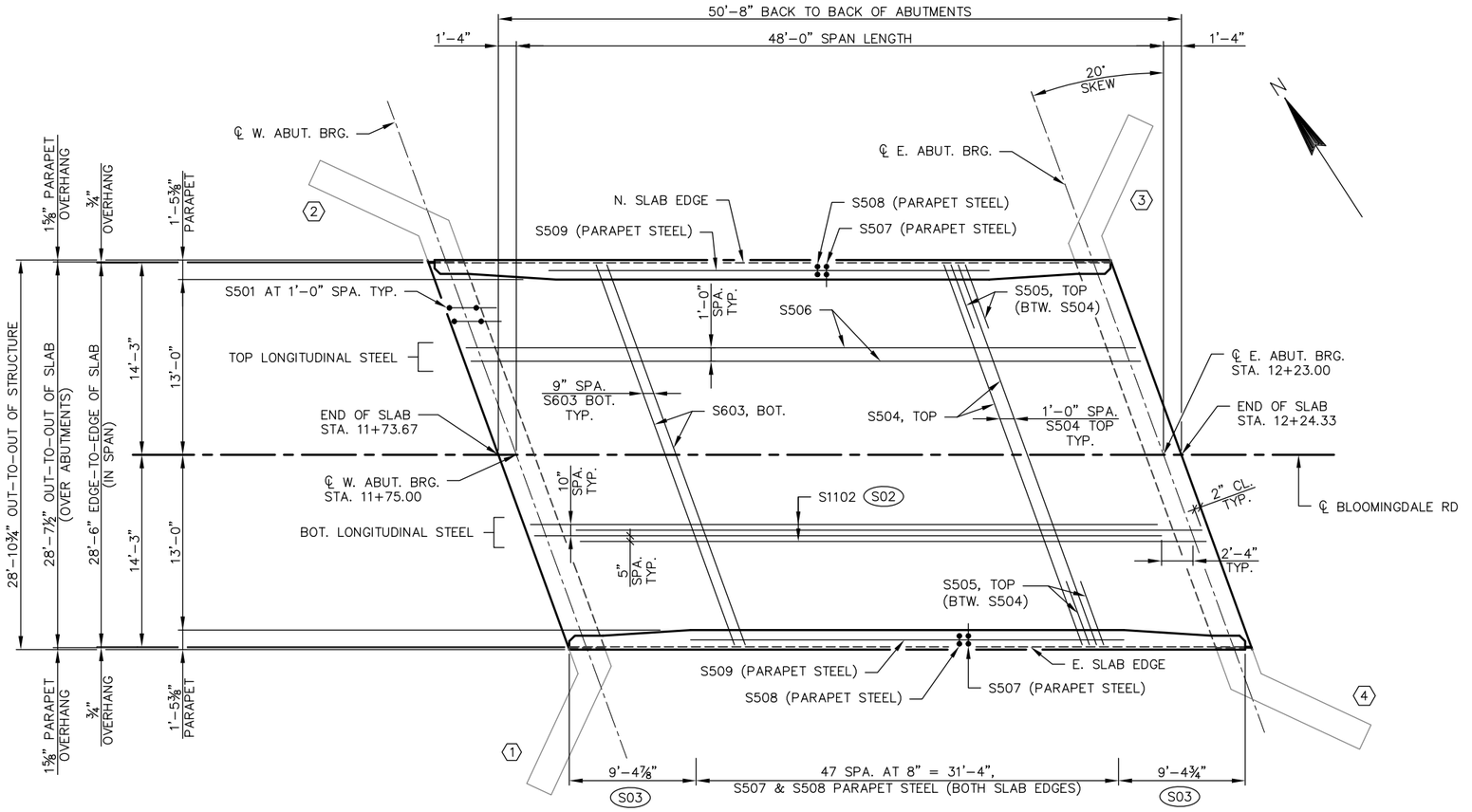
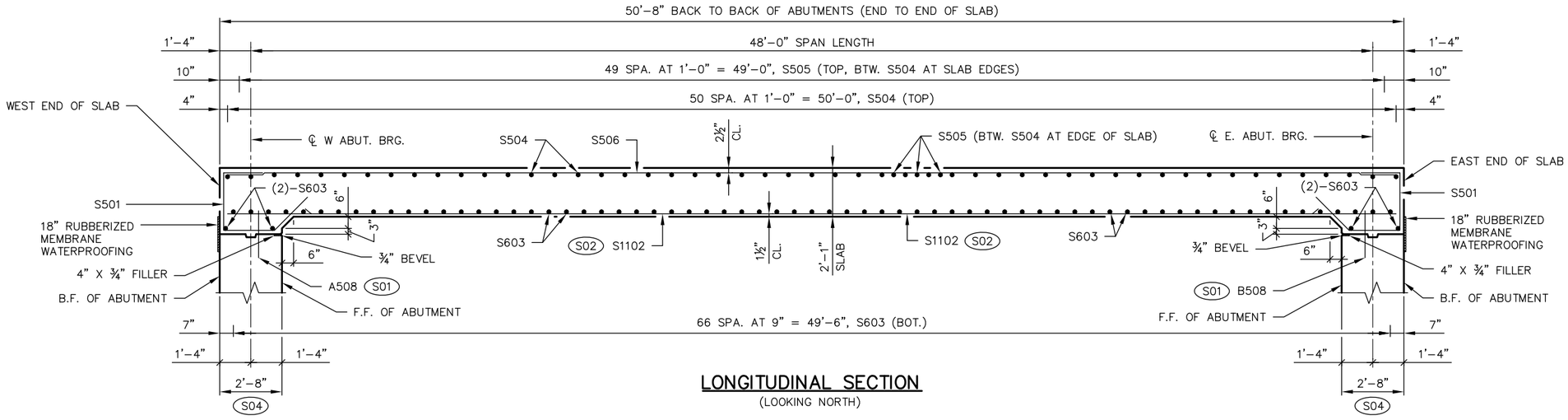
5377–00–70





LONGITUDINAL SECTION
(LOOKING NORTH)

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'–0" CENTERS EACH WAY.

BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'–0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

PARAPETS TO BE CAST ON THE SLAB AFTER FALSEWORK HAS BEEN RELEASED.

(S01) SEE "EAST ABUTMENT" SHEET & "WEST ABUTMENT" SHEET FOR PLACEMENT OF A508 AND B508 BARS.

(S02) EXTEND ONE END OF THE S1102 BAR TO 2" CLEAR OF ONE BACK FACE OF ABUTMENT. ALTERNATE BETWEEN EAST AND WEST ABUTMENTS ACROSS ENTIRE SLAB.

(S03) PARAPET STEEL IN TRANSITION ZONE. SEE DETAILS ON "PARAPET & SUPERSTRUCTURE" SHEET.

(S04) DIMENSION IS TAKEN PARALLEL TO ℄ BLOOMINGDALE RD.

⬡ INDICATES WING NUMBER

F.F. – FRONT FACE
B.F. – BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–62–276

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SUPERSTRUCTURE

SHEET 8 OF 10

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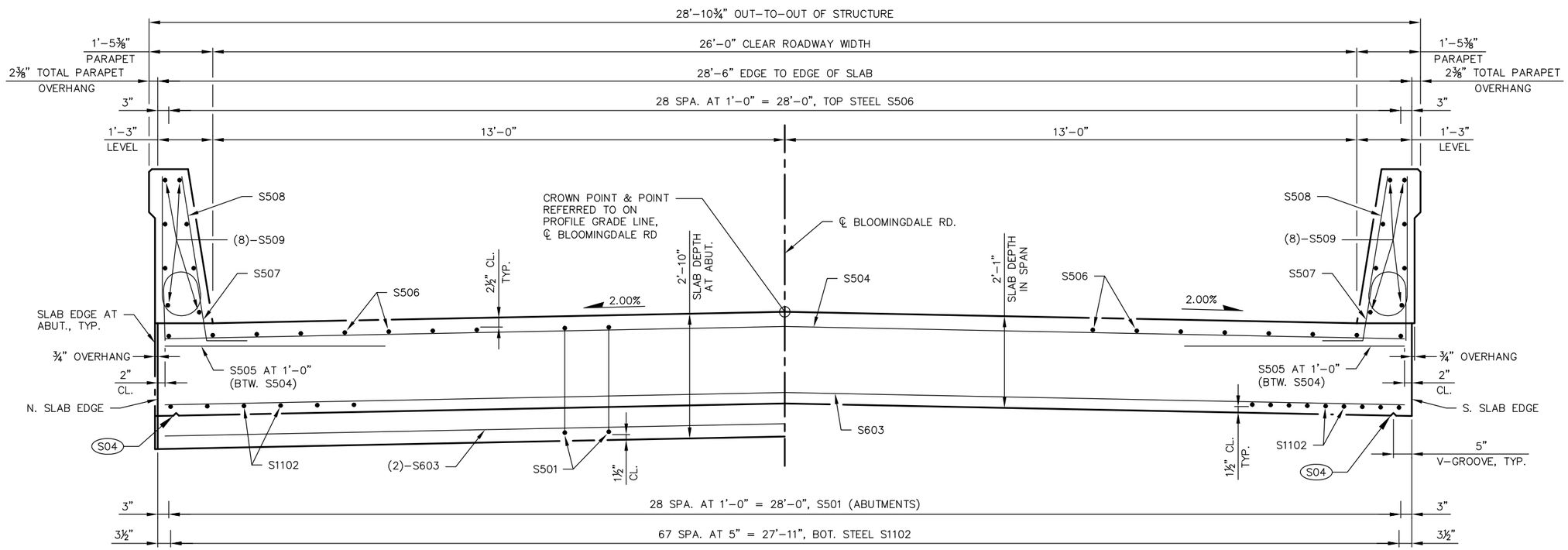
I.D. 5377–00–70

PLOT DATE: Oct 30, 2024

FILE: B620276_08–10_super.dwg
PLOT SCALE:

STATE PROJECT NUMBER
5377-00-70



AT ABUTMENTS

CROSS SECTION THRU ROADWAY

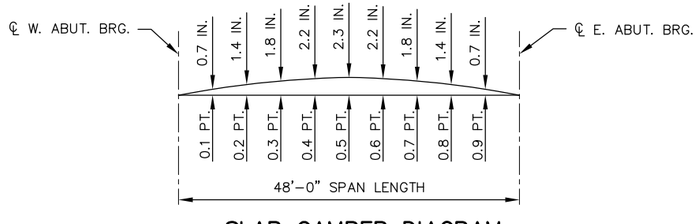
(LOOKING EAST)

IN SPAN

SURVEY TOP OF SLAB ELEVATIONS

	℄ W. ABUT. BRG.	5/10 PT.	℄ E. ABUT. BRG.
NORTH SLAB EDGE			
℄ BLOOMINGDALE RD.			
SOUTH SLAB EDGE			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND REFERENCE LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.



SLAB CAMBER DIAGRAM

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION.

TOP OF SLAB ELEVATIONS

SPAN PT	NORTH SLAB EDGE	℄ BLOOMINGDALE RD.	SOUTH SLAB EDGE
℄ W. ABUT.	943.76	943.95	943.61
0.1	943.70	943.88	943.53
0.2	943.63	943.80	943.44
0.3	943.54	943.70	943.33
0.4	943.45	943.60	943.22
0.5	943.35	943.49	943.09
0.6	943.24	943.36	942.96
0.7	943.11	943.23	942.81
0.8	942.98	943.08	942.65
0.9	942.83	942.93	942.49
℄ E. ABUT.	942.68	942.76	942.31

NOTES

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

(S04) ¾" V-GROOVE. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT BODY. V-GROOVES ARE REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-67-276

DRAWN BY JDO | PLANS CK'D ACK

SUPERSTRUCTURE DETAILS

SHEET 9 OF 10

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I.D. 5377-00-70

PLOT DATE: Oct 30, 2024

FILE: B620276_08-10_super.dwg
PLOT SCALE:

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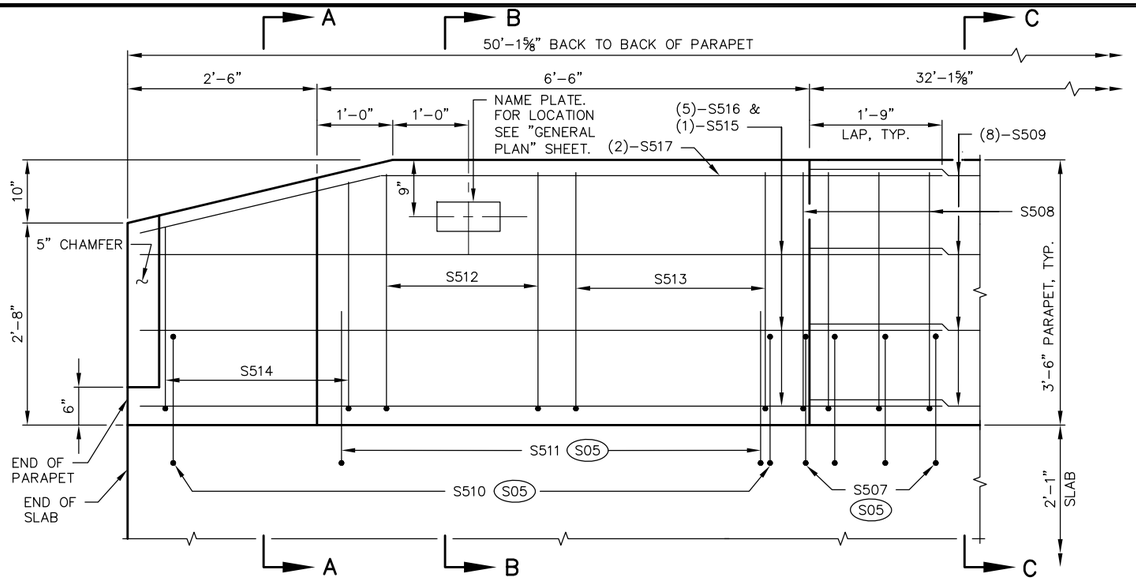
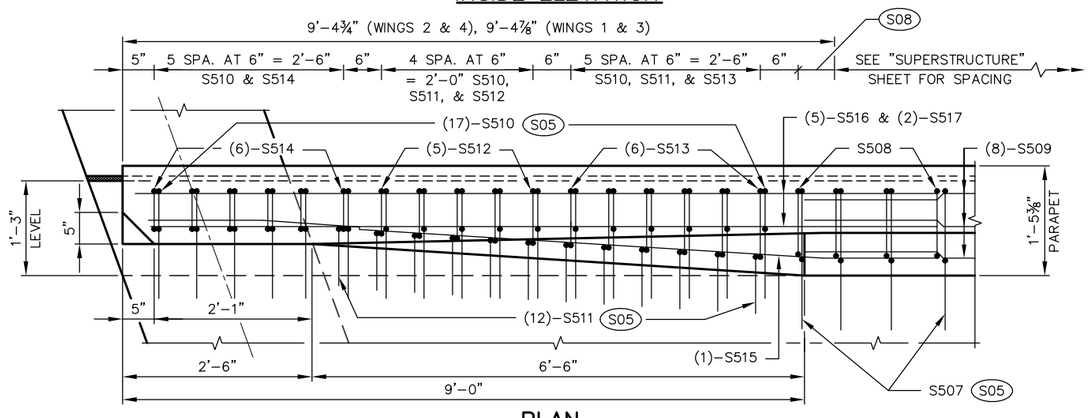
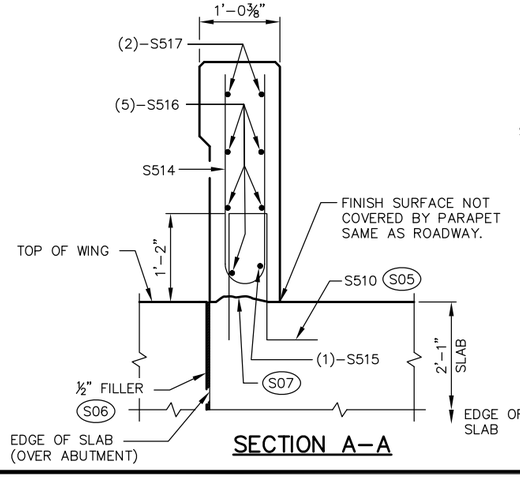


INSIDE ELEVATION

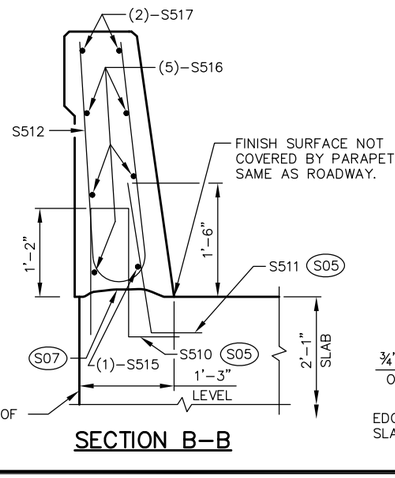


PLAN

(END OF SLAB NEAR WING 2 SHOWN, END OF SLAB NEAR ALL OTHER WINGS SIMILAR)



SECTION A–A



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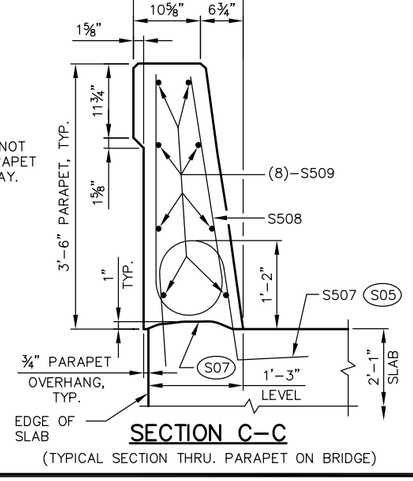
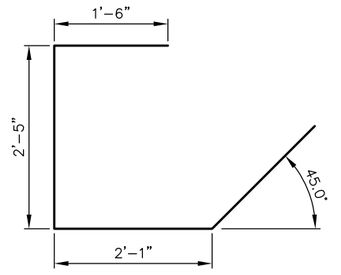


SECTION C–C

(TYPICAL SECTION THRU. PARAPET ON BRIDGE)



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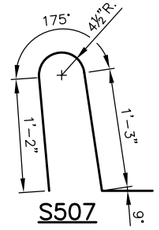

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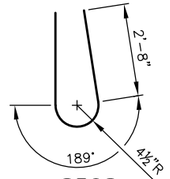

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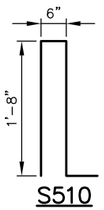

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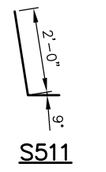

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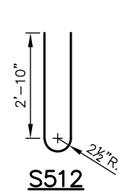

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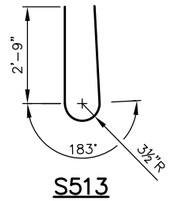

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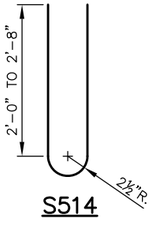

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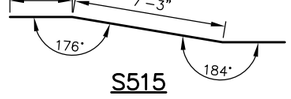

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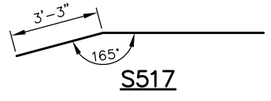

S517

STATE PROJECT NUMBER

5377-00-70

BILL OF BARS
SUPERSTRUCTURE

COATED = 27,160 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
S501	58		8'-0"	X		SLAB AT ABUTMENT – TIES	LONGIT.
S1102	68		46'-10"			SLAB – BOTTOM	LONGIT.
S603	71		29'-11"			SLAB – BOTTOM	TRANS.
S504	51		29'-11"			SLAB – TOP	TRANS.
S505	100		5'-0"			SLAB – TOP BTW. S504	TRANS.
S506	29		50'-3"			SLAB – TOP	LONGIT.
S507	100		4'-5"	X		PARAPET – STIRRUP	VERT.
S508	100		6'-8"	X		PARAPET – STIRRUP	VERT.
S509	16		32'-2"			PARAPET – HORIZ.	LONGIT.
S510	68		4'-4"	X		PARAPET – TRANSITION – STIRRUP	VERT.
S511	48		2'-9"	X		PARAPET – TRANSITION – STIRRUP	VERT.
S512	20		6'-5"	X		PARAPET – TRANSITION – STIRRUP	VERT.
S513	24		6'-6"	X		PARAPET – TRANSITION – STIRRUP	VERT.
S514	24		5'-5"	X	⚠	PARAPET – TRANSITION – STIRRUP	VERT.
S515	4		10'-8"	X		PARAPET – TRANSITION – HORIZ.	LONGIT.
S516	20		10'-7"			PARAPET – TRANSITION – HORIZ.	LONGIT.
S517	8		10'-9"	X		PARAPET – TRANSITION – HORIZ.	LONGIT.

THE FIRST OR FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

NOTES

(S05) S507, S510, AND S511 BARS TO BE TIED TO SUPERSTRUCTURE SLAB BEFORE CONCRETE IS POURED.

(S06) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

(S07) CONST. JOINT – STRIKE OFF AS SHOWN AND LEAVE ROUGH.

(S08) 5¾" AT WINGS 2 AND 4. 5⅞" AT WINGS 1 AND 3.

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
S514	4 SERIES OF 6	4'-9" TO 6'-1"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-276

DRAWN BY JDO | PLANS CK'D ACK

PARAPET & SUPERSTRUCTURE

SHEET 10 OF 10

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I.D. 5377-00-70

PLOT DATE: Oct 30, 2024

FILE: B620276_08-10_super.dwg
PLOT SCALE:

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
11+23.67	0.00	27.79	3.12	0.26	0	0	0	0	0	0
11+50.00	26.33	25.90	3.01	1.25	26	3	1	26	1	22
11+59.63	9.63	25.01	3.02	2.95	9	1	1	35	3	29
11+75.75	16.12	6.39	0.65	9.63	9	1	4	44	8	32
STRUCTURE B-62-0276										
DIVISION 1 TOTAL					44	5	6			

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
STRUCTURE B-62-0276										
12+22.25	0.00	9.55	0.70	2.32	0	0	0	0	0	0
12+38.37	16.12	36.07	3.32	0.92	14	1	1	14	1	12
12+50.00	11.63	37.13	3.33	0.01	16	1	0	30	1	27
12+74.33	24.33	35.08	3.39	0.52	33	3	0	63	1	57
DIVISION 2 TOTAL					63	5	1			
PROJECT TOTAL					107	10	7			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	[(CUT) - (FILL*FILL FACTOR) - SALVAGED/UNUSABLE PAVEMENT MATERIAL)]
	PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

9

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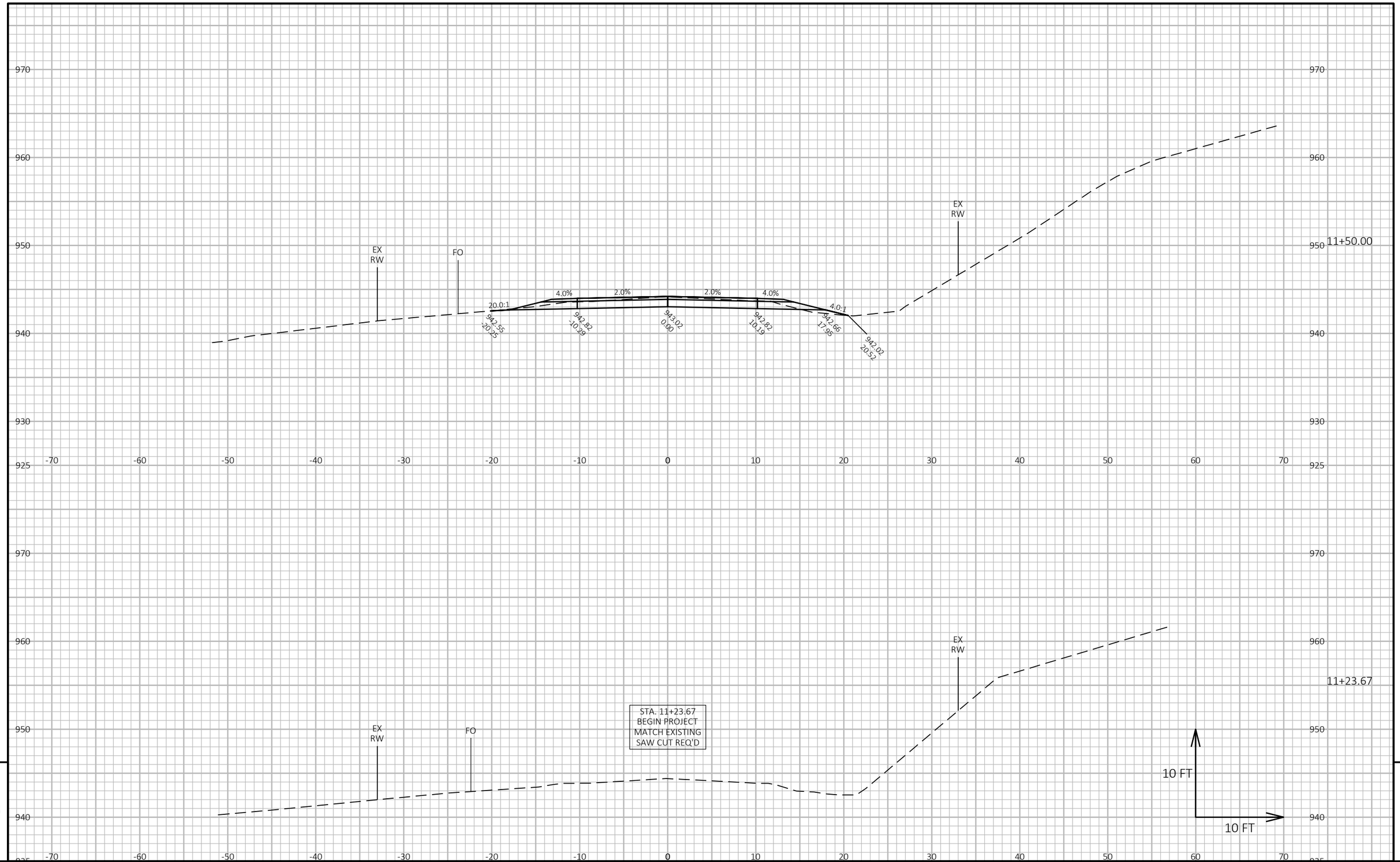
PROJECT NO: 5377-00-70 | HWY: BLOOMINGDALE RD | COUNTY: VERNON | EARTHWORK DATA | SHEET 38 | E

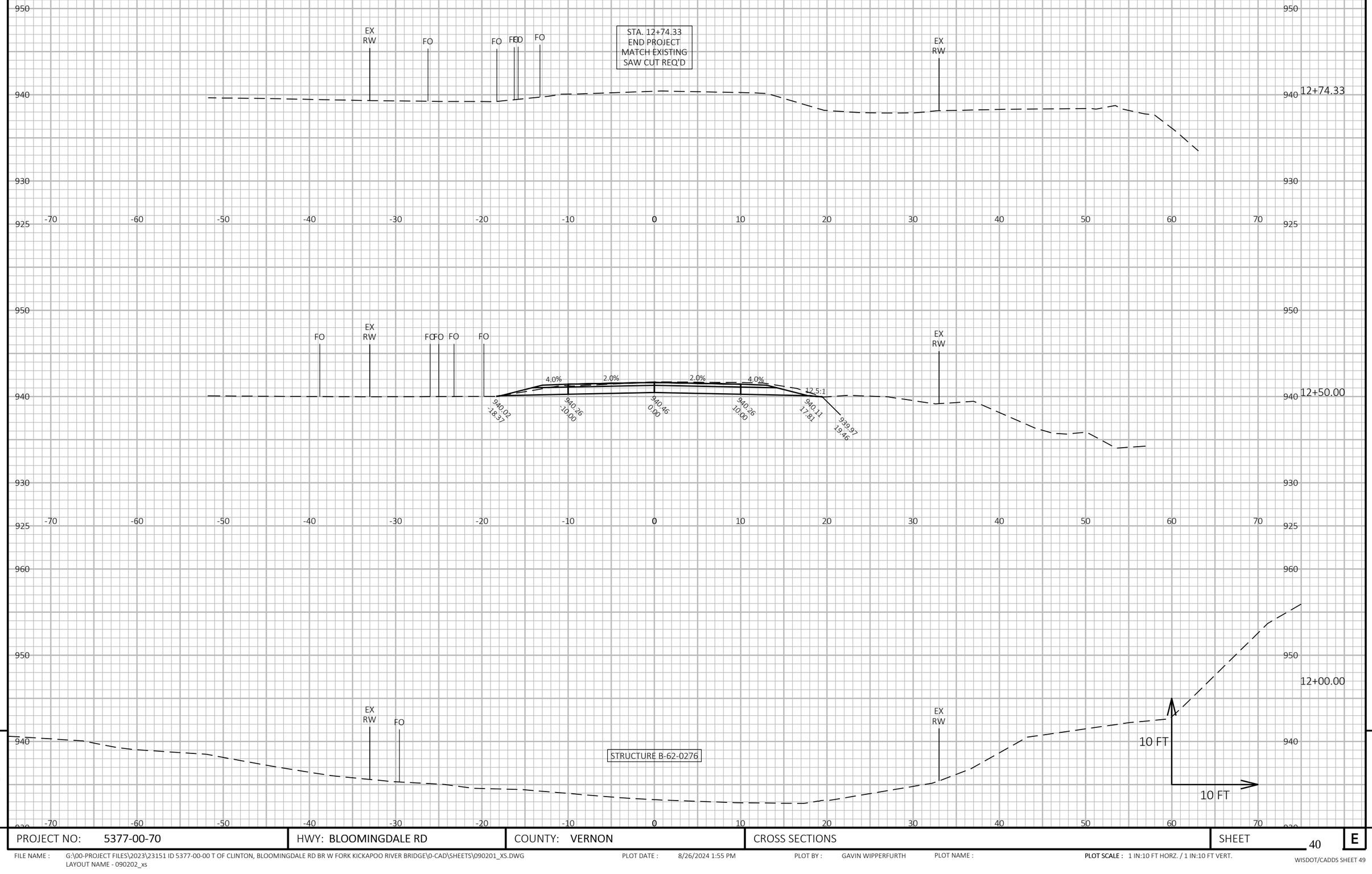


PROJECT NO: 5377-00-70	HWY: BLOOMINGDALE RD	COUNTY: VERNON	CROSS SECTIONS	SHEET 39	E

FILE NAME : G:\00-PROJECT FILES\2023\23151 ID 5377-00-00 T OF CLINTON, BLOOMINGDALE RD BR W FORK KICKAPOO RIVER BRIDGE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090201_xs

PLOT DATE : 8/26/2024 1:55 PM PLOT BY : GAVIN WIPPERFURTH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 5377-00-70	HWY: BLOOMINGDALE RD	COUNTY: VERNON	CROSS SECTIONS	SHEET 40	E

FILE NAME : G:\00-PROJECT FILES\2023\23151 ID 5377-00-00 T OF CLINTON, BLOOMINGDALE RD BR W FORK KICKAPOO RIVER BRIDGE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090202_xs

PLOT DATE : 8/26/2024 1:55 PM PLOT BY : GAVIN WIPPERFURTH PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

Notes

Wisconsin Department of Transportation

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